

حمل الآن

مجاناً وحصرياً

# المراجعة رقم (1)

## الترم الثاني





## Second term Questions Bank



### Question 01

choose the corret answer

- 1 At the convergence of flowing river water that carries clay and sediments with the sea, landform which is called ..... is formed  
 (a) delta (b) sand dune (c) dam (d) canyon
- 2 Which of the following landforms is steep and formed due to power of flowing water erosion?  
 (a) Plains (b) Valleys (c) Canyons (d) Mountains
- 3 When a rock blocks the path of flying sand, a ..... may be formed.  
 (a) dune (b) river (c) valley (d) canyon
- 4 A triangular landform formed from very fine bits of sand and clay that formed due to flow of river into the sea is a.....  
 (a) canyon (b) delta (c) sand dunes (d) valley
- 5 If the rain falls over a canyon for several times per year, .....  
 (a) its depth increases (b) its depth decreases (c) it becomes flat (d) not be affected
- 6 The input energy when using the lamp is the ..... energy.  
 (a) electrical (b) potential (c) kinetic (d) thermal
- 7 Steep valley forms due to flowing water erosion are called .....  
 (a) canyon (b) sand dune (c) hill (d) delta
- 8 Which of the following landforms is steep and formed due to power of flowing water erosion?  
 (a) plains (b) valley (c) canyons (d) Mountains
- 9 The solar energy is converted into ..... energy in greenhouses.  
 (a) electrical (b) sound (c) thermal (d) Potential
- 10 When rocks break down into small pieces without change in its structure, this indicates the occurrence of..... process.  
 (a) mechanical weathering (b) chemical weathering (c) erosion by wind (d) erosion by water





- 11 The dropping of sediments in a new place, is known as .....
- (a) weathering (b) deposition (c) freezing (d) erosion
- 12 Dissolving metals forming rocks is an example for.....
- (a) mechanical weathering (b) weathering by wind (c) deposition in rivers (d) chemical weathering
- 13 Which of the following is from causes of mechanical weathering?
- (a) Heat (b) Acid (c) Lichens (d) Oxygen
- 14 All the following are processes that can change Earth's surface, except .....
- (a) digestion (b) erosion (c) weathering (d) deposition
- 15 ..... is the process in which sediments move to other place on the Earth's surface
- (a) Erosion (b) Weathering (c) Deposition (d) Melting
- 16 ..... causes mechanical weathering.
- (a) Oxygen (b) Acid rain (c) Lichens (d) Wind
- 17 ..... may cause chemical weathering or mechanical weathering.
- (a) Oxygen (b) Water (c) Rocks (d) Lichens
- 18 Rusting of iron forming rocks is an example of .....
- (a) mechanical weathering (b) weathering by wind (c) deposition in rivers (d) chemical weathering
- 19 From factors of mechanical weathering .....
- (a) oxygen (b) acid rains (c) temperature (d) acids of lichens
- 20 Lichens produce ..... on rocks that dissolve minerals found in these rocks.
- (a) oxygen (b) acids (c) water (d) rain
- 21 The unusable energy that produced from the electric lamp ..... energy
- (a) potential (b) chemical (c) thermal (d) light
- 22 Limestone caves are formed due to the combination of.....
- (a) dissolved minerals (b) red-colored rusts (c) living organisms (d) acid rains
- 23 The wasted energy in most devices in the form of ..... energy.
- (a) electric (b) thermal (c) sound (d) kinetic





- 24 Rusting of a statue is an example of the action of ..... process.  
 (a) deposition (b) erosion (c) mechanical weathering (d) chemical weathering
- 25 Rocks can be broken down into small particles by the exposure to all of the following, except .....  
 (a) rain water (b) wind (c) moon (d) water waves
- 26 The formation of canyons takes .....  
 (a) few minutes (b) few hours (c) few days (d) many years
- 27 Which of the following does not cause mechanical weathering?  
 (a) Plant root (b) Acid rains (c) Wind movement (d) Water movement
- 28 Sand is formed due to breaking down of .....  
 (a) glass (b) wood (c) rocks (d) Plastic
- 29 Which of the following is evidence of erosion? forming of .....  
 (a) Sand dunes (b) Rock crumbs (c) Nile river delta (d) Sedimentary rock
- 30 The formation of sand dunes in Eastern Desert in Egypt is due to the movement of .....  
 (a) floods (b) winds (c) waves (d) torrents
- 31 The delta is formed when the river stream entering all of the following except .....  
 (a) A lake (b) A sea (c) A mountain (d) an ocean
- 32 Both hair dryer and electric water kettle produce ..... energy.  
 (a) thermal (b) light (c) electric (d) potential
- 33 When a river meets a sea or an ocean, a ..... is formed.  
 (a) canyon (b) volcano (c) mountain (d) delta
- 34 The output energy when playing drums is the ..... energy.  
 (a) chemical (b) light (c) sound (d) potential
- 35 The output energy when using the hair dryers is the ..... energy.  
 (a) electrical (b) potential (c) light (d) thermal
- 36 The stored energy inside the battery of a mobile phone is..... energy  
 (a) electrical (b) light (c) Chemical (d) sound
- 37 When you use the hand bell, the .... energy changed into sound energy.  
 (a) Electrical (b) potential (c) thermal (d) kinetic





- 38 The energy source in a toy car is the .....
- (a) engine (b) tires (c) battery (d) fuel
- 39 The idea of design and work of the robot that explores the surface of Mars depends on the idea of transforming .....
- (a) electric to kinetic (b) potential to kinetic (c) light to electric (d) kinetic to electric
- 40 The Sun provide us with ....., .....
- (a) Sound - Heat (b) Light - Electricity (c) Sound - Light (d) Heat - Light
- 41 Which of the following energy forms isn't produced from the Sun?
- (a) Thermal energy (b) Light energy (c) Kinetic energy (d) Radiation energy
- 42 When the blades of wind turbines rotate, this causes their turbines to rotate that leads to generating ..... energy.
- (a) electrical (b) solar (c) chemical (d) Potential
- 43 Water flows through turbines in hydroelectric dams to generate ..... energy
- (a) electrical (b) potential (c) solar (d) light
- 44 Among forms of fuel that present in car fuel stations are .....
- (a) gasoline - wood (b) natural gas - coal (c) wood - coal (d) natural gas - gasoline
- 45 All of the following are forms of fuel, except .....
- (a) natural gas (b) gasoline (c) coal (d) glass
- 46 ..... is considered as the main resource of energy on the Eath's surface
- (a) Gasoline (b) the sun (c) natural gas (d) the moon
- The output energy that is not from the job of hair dryer is .....
- 47 (a) chemical (b) sound (c) kinetic (d) light
- 48 During riding a bike, some kinetic energy is converted into ..... energy due to friction of bike's tire with the road.
- (a) chemical (b) potential (c) thermal (d) electrical
- 49 The produced energy from radio that reflects its main function is ..... energy
- (a) electric (b) sound (c) light (d) chemical
- 50 Input energy when using the hair dryer is ..... energy.
- (a) electrical (b) potential (c) light (d) kinetic





- 51 Wood is considered as .....
- (a) bio fuel (b) fossil fuel (c) liquid fuel (d) gaseous fuel
- 52 ..... is a type of biofuel which is made of wood.
- (a) Coal (b) Oil (c) Charcoal (d) Natural gas
- 53 All the following are forms of fossil fuel, except .....
- (a) water (b) coal (c) natural gas (d) Oil
- 54 Extreme heat and pressure under the earth's surface has an important role in forming .....
- (a) wood (b) wind (c) fossil fuel (d) biofuel
- 55 From examples of renewable resources of energy is .....
- (a) oil (b) wind (c) coal (d) natural gas
- 56 The sun and wind are considered as ..... resources of energy.
- (a) renewable (b) nonrenewable (c) destroyed (d) Harmful
- 57 The resource that we consume in a rate faster than its formation in nature.....
- (a) Wind (b) Water (c) Solar energy (d) Fossil fuel
- 58 In a battery of a toy car ..... energy changes into electrical energy
- (a) chemical (b) sound (c) thermal (d) kinetic
- 59 In water turbines, the ..... energy of water is changed into electrical energy
- (a) chemical (b) kinetic (c) thermal (d) light
- 60 Energy produced from flowing water of waterfalls, dams and turbines is called .....
- (a) mechanical energy (b) hydroelectric energy (c) chemical energy (d) kinetic energy
- 61 When a rock's surface is eroded due to weather factors such as air or water, this indicates the occurrence of..... process.
- (a) weathering (b) deposition (c) transfer (d) Erosion
- 62 Water turbines can generate more electricity by increasing the ..... energy of water that is stored behind dams.
- (a) light (b) sound (c) thermal (d) potential
- 63 Curiosity rover is designed to explore .....
- (a) Mars planet (b) the Moon (c) the sun (d) Earth planet





- 64 The ..... on the rover curiosity convert solar energy into ..... energy which is used to charge its batteries  
 (a) Solar panels electrical (b) Batteries electrical (c) Solar panels sound (d) Batteries sound
- 65 The output energy in the Mars exploration vehicle is ..... energy.  
 (a) electrical (b) light (c) kinetic (d) solar
- 66 By rubbing hands ..... energy is changed into thermal energy.  
 (a) chemical (b) kinetic (c) sound (d) potential
- 67 A plugged-in lamp can turn ..... energy to ..... energy.  
 (a) electrical, light (b) kinetic, light (c) chemical, light (d) chemical, heat
- 68 Fossil fuel is extracted from .....  
 (a) the Earth's surface (b) the underground (c) the food (d) the water
- 69 Fossil fuels need ..... to be formed under the Earth's surface.  
 (a) five years (b) ten years (c) hundreds of years (d) millions of years
- 70 All forms of fossil fuel are formed .....  
 (a) above earth's surface (b) under earth's surface (c) above water surface (d) in air around us
- 71 All the following are forms of fossil fuel, except .....  
 (a) water (b) coal (c) natural gas (d) oil
- 72 Among the following resources, we must conserve.....  
 (a) Solar energy - coal (b) Solar energy - wind (c) Solar energy and oil (d) Oil and coal
- 73 Energy produced from the electric bulb is ..... energy.  
 (a) chemical (b) sound (c) light (d) kinetic
- 74 All of the following are examples of renewable energy resources, except .....  
 (a) fossil fuel (b) waterfalls (c) wind (d) sunlight

Question 02

put ( true ) or ( false )

- 1 When iron in rocks rusts, the rock becomes stronger. ( )
- 2 When water freezes, its volume increases. ( )





- 3 Gravity pulls rocks down the mountainsides causing its erosion. ( )
- 4 Deposition process never change the shape of the land. ( )
- 5 Nile delta is a triangle-shaped mass of mud and other sediments. ( )
- 6 The volume of water decreases when it freezes. ( )
- 7 The Earth's surface never changes over time. ( )
- 8 Canyons can take millions of years to be formed ( )
- 9 Sea waves may cause erosion of beaches. ( )
- 10 Both sandcastles and canyons can be formed in few hours. ( )
- 11 Canyons are special types of valleys that have steep sides. ( )
- 12 Mechanical weathering causes changing in the structure of the rocks and new substance is formed. ( )
- 13 Erosion process is usually followed by weathering process. ( )
- 14 Deposition process never change the shape of the land. ( )
- 15 Plant roots growing in crack of rocks cause chemical weathering ( )
- 16 Wind can be considered as one of the factors that cause weathering. ( )
- 17 All physical factors of mechanical weathering lead to breaking down of rocks. ( )
- 18 Water causes both mechanical and chemical weathering. ( )
- 19 The process of deposition occurs when sediment down. ( )
- 20 Sandcastle wrecked during a long period of time. ( )
- 21 Hot and cold cause rocks to break. ( )
- 22 Wind can pick up sand grains in forming sand dunes. ( )
- 23 Weathering and deposition take place together ( )
- 24 Energy is created and destroyed. ( )
- 25 Hydropower is a clean energy resource. ( )
- 26 Deltas are formed by weathering process. ( )
- 27 Canyons are similar in their colors, texture and shapes. ( )
- 28 Strong wind and hurricanes carry sand grains for a short distance. ( )
- 29 Erosion is the process in which the small particles are moved to other places. ( )
- 30 Floods are one of the factors that causes water erosion. ( )





- 31 Gravity doesn't affect the small rocks that have been broken down from mountains. ( )
- 32 Both valleys and canyons often have river in their bottom. ( )
- 33 Small sand dunes are formed due to strong wind. ( )
- 34 Dunes are lowland areas which have gentle sloped sides. ( )
- 35 Small hills of sand found in a desert are known as canyons ( )
- 36 Mars is located a few meters away from Earth. ( )
- 37 Mars Curiosity can be operated from a distance ( )
- 38 A toy car can continue moving even after its battery runs out. ( )
- 39 Acid rains formed by combination of carbon dioxide with water vapor of air ( )
- 40 We have to conserve all forms of fuel. ( )
- 41 Coal was formed from the sea animals remains. ( )
- 42 Charcoal is formed from decomposition of remains of ancient plants ( )
- 43 Biofuels are from nonrenewable resources of energy. ( )
- 44 Fossil fuels that human made from corn can be replaced as it is used ( )
- 45 Generator in the electric power station changes potential energy into electrical energy ( )
- 46 Wind, oil and natural gas are natural resources used to generate clean energy ( )
- 47 Using solar energy is a way to conserve fossil fuels. ( )
- 48 Windmills always do their job all the time, because the wind never stop blowing ( )
- 49 The Sun is the main source of energy on Earth. ( )
- 50 The Sun provides the Earth with light and heat. ( )
- 51 Wind is a renewable energy resource. ( )
- 52 Energy cannot be transformed from one form to another ( )
- 53 Both electric bulb and electric heater produce thermal energy. ( )
- 54 The produced sound energy helps the hair dryer to do its function. ( )
- 55 Water is one of the sources of electricity production in Egypt ( )
- 56 Wood is a fossil fuel that is used in warming houses ( )





- 57 In wind turbines, the kinetic energy is converted into chemical energy. ( )
- 58 When water freezes, its volume decreases. ( )
- 59 A canyon may take one year only to be formed ( )
- 60 Smog doesn't cause any damage in the human respiratory system ( )
- 61 Using fossil fuels keeps the environment from pollution. ( )
- 62 Both coal and wood produce thermal energy when they are burned ( )
- 63 You need gasoline to move a bicycle ( )
- 64 When fuel is burned, it produces thermal energy. ( )
- 65 Green plants are one of the nonrenewable resources of energy. ( )
- 66 Water and gasoline are two renewable resource of energy ( )
- 67 Chemical energy is the energy that stored in food and battery. ( )
- 68 Energy may be destroyed inside different devices. ( )
- 69 Most of energy chains start with the moon ( )
- 70 There is a stored chemical energy inside the food we eat. ( )
- 71 Sand dunes are formed by erosion only. ( )
- 72 Machines make our life easier. ( )
- 73 Dams are built on river to control the wind flow. ( )
- 74 Rivers store kinetic energy. ( )
- 75 Dams are built on rivers in order to generate solar energy ( )
- 76 The watermills convert electrical energy into kinetic energy. ( )
- 77 Electricity generated by wind turbines is transmitted through wind. ( )
- 78 Using solar energy is a way to conserve fossil fuels. ( )
- 79 Electrical energy can be generated from both waterfalls and wind movement. ( )
- 80 The flow of water can be controlled to generate electricity in dams. ( )

### Question 03

### Complete the following sentences

- 1 ..... and ..... may sculpt landscapes.





- 2 Sediment down is a process of .....
- 3 Wadi Nakhr located in the country of .....
- 4 Chemical weathering ..... the structure of rocks.
- 5 ..... are deep valleys carved by flowing water.
- 6 The origin of sand is the breaking down of some types of .....
- 7 The process of transporting small rocks from one place to another by the help of water or wind is known as .....
- 8 Wind, ..... and gravity are natural factors that control erosion process.
- 9 The shape of coastal rocks is affected by the force of ..... and wind.
- 10 Types of weathering can be classified into mechanical weathering and ..... weathering
- 11 ..... is the process of lying down of sediments after its erosion.
- 12 Lichens produce acids on rocks that dissolves its .....
- 13 Formation of limestone caves is an example of ..... weathering.
- 14 Strong wind and hurricanes carry ..... for a long distance.
- 15 Gentle winds can form small ..... like that present at sea beaches.
- 16 When strong ..... blow in the desert, large sand dunes are formed.
- 17 Nile River Delta in Egypt is formed due to ..... process
- 18 When the force of wind ....., the sand can't travel for a long distance
- 19 Rain water is pulled downhill forming small stream due to .....
- 20 Blowing of strong ..... in the desert may form large sand dunes.
- 21 The flow of energy till be with us is known as .....
- 22 Both valley and canyon often have .....flow through their lowest points
- 23 Energy cannot be ..... nor .....
- 24 Light energy is converted into ..... energy which is stored in the form of sugar inside the trees.
- 25 Energy can neither be ..... nor ....., but only ..... from one form to another
- 26 To operate an electric mixer, we use ..... energy.
- 27 Fuel is used as a source of ..... energy.





- 28 We need ..... energy for cooking food and warming houses.
- 29 Wood and ..... are examples of biofuel, while ..... and ..... are examples of fossil fuel.
- 30 Factories may cause pollution of ....., ..... and ..... due to the chemical they use
- 31 Global warming causes the raise of ..... of earth and change its .....
- 32 Coal and ..... can be used in electric power stations to generate electricity
- 33 Turbines in electric power stations are turned by steam and they produce ..... energy to run the ..... of the electric power stations
- 34 The electric generator changes ..... energy into ..... energy
- 35 In the washing machine electrical energy converted into ..... energy.
- 36 When you ride a bicycle, the ..... energy stored in your body is converted into ..... energy which causes the bicycle to move
- 37 Energy produced from the radio which helps the device do its main function is ..... energy
- 38 The mobile phone converts chemical energy stored in its batteries into ..... energy and ..... energy.
- 39 In water turbines, the ..... energy of water movement is converted into a type of electrical energy which is called ..... energy.
- 40 To avoid air pollution, we must use ..... resources of energy such as water.
- 41 The Sun provides Earth with light and .....
- 42 ..... used to control the flow of water and increases the potential energy of water to generate electricity.
- 43 Solar panels are used to generate ..... energy
- 44 Most of the energy we use is produces inside the .....
- 45 The energy that is produced from the battery and used to operate a toy car is ..... energy.
- 46 The electric lamp converts ..... energy into light and heat energy.
- 47 The energy can be ..... from one form to another
- 48 In hand bell, kinetic energy is converted into ..... energy.
- 49 Both wind and water movement produce ..... energy that is used to rotate turbines to generate ..... energy.
- 50 Wind blows due to the difference in ..... between the cold air and the hot air.
- 51 By increasing the rotation of wind turbine blades, the wind turbine generates more ..... energy.





- 52 When the ..... energy of wind increases, the speed of rotation of turbine blades will .....
- 53 Renewable energy resources include ....., ..... and .....
- 54 When we expose our bodies to the Sun, we feel .....
- 55 We can use solar energy in cooking by using curved mirror which collect and focus ..... onto metal pots to heat them.
- 56 Canyon is a special type of ..... that has steep sides
- 57 After rocks weathering, the process of ..... occurs sand and Soil moved to another place
- 58 Formation of red rust in some rock is evidence of occurring ..... process.
- 59 ..... is the breaking down of rocks into smaller pieces.
- 60 Mechanical weathering ..... the structure of rocks.
- 61 Most caves are formed due .....
- 62 The cycle of ..... and ..... until rock breaks
- 63 The pieces of rock that are formed by weathering are known as .....
- 64 Batteries which put inside the toy is considered .....
- 65 The missions of mars depend on ..... and .....
- 66 We must not ..... and ..... of water.
- 67 Water from ..... is used in electricity generation.

#### Question 04

write scientific term for each of the following

- 1 Rising the temperatures of Earth. ( )
- 2 Rains that formed by combination of carbon dioxide with water vapor of air. ( )
- 3 The clean energy resources that can be used in electric generation. ( )
- 4 Energy stored uphill water rivers. ( )
- 5 Energy that makes turbines and generators in dams works. ( )
- 6 The process by which sediments lay down after its erosion. ( )





- 7 A process in which small broken rocks move from a place by the help of wind or water. ( )
- 8 Part of the plant grows inside cracks of rocks causing its weathering ( )
- 9 A gas in air combines with iron of some rocks and causes its weakness. ( )
- 10 Moving fragments of rocks or soil around. ( )
- 11 It is the process in which weathered rocks and soil are layed down or dropped by wind, water or gravity. ( )
- 12 A fan-shaped (triangular) mass of sediment that is formed where a river enters a larger body of water like seas. ( )
- 13 A hill of sand created by the wind. ( )
- 14 The pathway from input to output energy. ( )
- 15 It is a special type of valleys which its sides are steep. ( )
- 16 Energy is neither created nor destroyed, but it changes from one form to another. ( )
- 17 The energy used to play a drum. ( )
- 18 A kind of energy that is produced from the electrical heater and burning coal ( )
- 19 A device used to convert electrical energy into light energy. ( )
- 20 The energy produced when the wood of trees is burned ( )
- 21 Any substance that produces thermal energy when it is burned. ( )
- 22 The energy produced when the wood is burned ( )
- 23 It is the main source of most forms of energy on the Earth's surface ( )
- 24 It is a form of bio fuel made up of some types of plants such as grass and wood chips. ( )
- 25 A robot vehicle that can be controlled from a distance and is used to explore the surface of mars ( )
- 26 The form of energy that is stored in battery of a remote-control toy cars. ( )
- 27 The energy produced from playing guitar. ( )
- 28 Energy that always produced due to friction. ( )
- 29 The wasted energy of a computer ( )
- 30 The energy that is produced from the blender and helps it in doing its job. ( )
- 31 A mill that is turned by water flow. ( )





- 32 A mill that is operated by wind movement. ( )
- 33 The type of energy that is produced from wind turbines to operate different home devices. ( )
- 34 They help farmers in cold regions to plant crops which grow only in warm climate. ( )
- 35 They are lowland areas between mountains and have gently sloped sides around rivers ( )
- 36 A panel designed to absorb the energy of the Sun to generate electricity. ( )
- 37 A turbine that uses the power of flowing air to generate electricity. ( )
- 38 A turbine in which the kinetic energy of moving water is used to generate hydroelectric energy. ( )
- 39 A build on the river that controls the flow of water and increases the potential energy of water ( )
- 40 A type of electrical energy generated by water turbines in dams. ( )
- 41 They are used in crushing grain. ( )
- 42 It is a form of fossil fuel that was formed from dead plants under the effect of extreme heat and pressure ( )
- 43 They are deep valleys carved by flowing water. ( )
- 44 A process in which rocks are broken down into smaller particles. ( )
- 45 The kind of weathering that changes the structure and color of rocks. ( )
- 46 It is a type of weathering through which acids of lichens dissolve minerals of rocks. ( )
- 47 Break the rocks into pieces without any change in its structure. ( )

### Question 05

### Give Reason for each of the following

- 1 Iron in rocks may rust.  
.....
- 2 Water plays an important role in the formation of limestone caves.  
.....
- 3 The root of trees can be agent for shaping the Earth surface.  
.....





- 4 Formation of delta when a river meets a sea  
.....
- 5 Formation of small sand dunes on a beach  
.....
- 6 Formation of large sand dunes at Western Desert in Egypt  
.....
- 7 A river stream enters a sea.  
.....
- 8 Trees and other plants are growing on both sides of small canyons.  
.....
- 9 Mars rover curiosity operates for long period of time on Mars without any need to be charged  
.....
- 10 Using wood of trees as a fuel has negative effects on the environment  
.....
- 11 Wood is considered as a fuel.  
.....
- 12 We must conserve the fossil fuels  
.....
- 13 We must turn off lights that we are do not need  
.....
- 14 Gasoline is burned inside a car engine  
.....
- 15 Wind considered as renewable resources of energy  
.....
- 16 Coal considered as non-renewable resources of energy  
.....
- 17 Smog of cars is very dangerous to human health.  
.....
- 18 Fossil fuels cannot be replaced as quickly as they are used  
.....
- 19 Generator are important in electric power stations  
.....





- 20 Some rocks appear red .  
.....
- 21 Using wood as a fuel has negative effects on the environment  
.....
- 22 Farmers must decrease the use of pesticides  
.....
- 23 We feel warm at night although the sun is not visible in the sky  
.....
- 24 Hydroelectric dams are built on rivers  
.....
- 25 Humans used windmills and watermills from hundreds of years ago  
.....
- 26 Kinetic energy of wind affects the speed of wind turbine blades rotation  
.....
- 27 Water turbines are placed in waterfalls areas  
.....
- 28 Sometimes wind turbines are useless  
.....
- 29 The body has energy inside it  
.....
- 30 The energy can change its forms but it never goes away  
.....

Question 06

What happens if ?

- 1 A red-colored rust is formed on some rocks.  
.....
- 2 Oxygen of air reacts with iron of some rocks.  
.....
- 3 The lichens growing on rocks produce acids  
.....
- 4 Acidic rain falls on rocks  
.....





- 5 A river carries sediments meet a sea.  
.....
- 6 Wind that is carrying sand particles hits a big rock  
.....
- 7 A river erodes the sediments of a mountain over a long period of time  
.....
- 8 The amount of fossil fuels if people don't conserve their use  
.....
- 9 Acid rain falls on building.  
.....
- 10 To the Earth's temperature if we use renewable resources of energy instead of fossil fuels  
.....
- 11 Sunlight falls on a greenhouse  
.....
- 12 Water of sea evaporates then condenses in air  
.....
- 13 Wind doesn't blow in an area that contains many modern wind turbines  
.....
- 14 The kinetic energy of a wind that is applied on the wind turbine increases  
.....
- 15 The presence of solar panels in some electrical devices  
.....
- 16 The solar cell in a calculator exposed to sunlight  
.....
- 17 There is difference in temperature of air around Earth  
.....
- 18 On shaking a hand bell. (according to the change of energy)  
.....
- 19 On turning an electric lamp. (according to changing in energy)  
.....





- 20 The change of energy when you turn on the television  
.....
- 21 You put your hands near a lighted lamp.  
.....
- 22 Rubbing your hand together (According to the change of energy)  
.....
- 23 The car movement if fuel runs out in a car.  
.....
- 24 The remains of marine were buried under the Earth's surface over millions of years  
.....
- 25 People increase using wood a fuel  
.....
- 26 The waves crash the beach.  
.....
- 27 Sediments lays back down.  
.....
- 28 Making deforestation.  
.....
- 29 Water passing through black tubes.  
.....
- 30 Stop building of dams.  
.....

Question 07

cross the odd word

- 1 Weathering - Photosynthesis - Deposition - Erosion.
- 2 Acid rains – wind - plant root - temperature.
- 4 Wood - Coal - Oil - Natural gas
- 5 Gasoline - Coal - Natural gas - Wind.
- 6 Wood - natural gas – gasoline - glass.





Question 08

Answer the following questions

- 1 **Mention the type of weathering in the following:**
  - a Acid rain falls on rocks
  - b Freezing of water inside cracks
- 2 What are the types of Weathering.  
.....
- 3 What are the factors that cause mechanical weathering?  
.....
- 4 What is the role of wind in mechanical weathering?  
.....
- 5 There are many types of sediments. Mention 2 types of them.  
.....
- 6 Determine the two factors that affect the Earth's surface.  
.....
- 7 Mention one different between the formation of dunes and formation of delta.  
.....
- 8 How were the chemical weathering and mechanical weathering differ?  
.....
- 9 How were the chemical weathering and mechanical weathering similar?  
.....
- 10 Mention the different between erosion and deposition and rearrange the two processes.  
.....
- 11 What is the definition of law of conservation energy?  
.....
- 12 Explain the function of rover curiosity  
.....
- 13 Determine the causes of air pollution.  
.....
- 14 Determine the causes of global warming.  
.....







## Second term Questions Bank



### Question 01

choose the corret answer

- 1 At the convergence of flowing river water that carries clay and sediments with the sea, landform which is called ..... is formed  
 (a) delta (b) sand dune (c) dam (d) canyon
- 2 Which of the following landforms is steep and formed due to power of flowing water erosion?  
 (a) Plains (b) Valleys (c) Canyons (d) Mountains
- 3 When a rock blocks the path of flying sand, a ..... may be formed.  
 (a) dune (b) river (c) valley (d) canyon
- 4 A triangular landform formed from very fine bits of sand and clay that formed due to flow of river into the sea is a.....  
 (a) canyon (b) delta (c) sand dunes (d) valley
- 5 If the rain falls over a canyon for several times per year, .....  
 (a) its depth increases (b) its depth decreases (c) it becomes flat (d) not be affected
- 6 The input energy when using the lamp is the ..... energy.  
 (a) electrical (b) potential (c) kinetic (d) thermal
- 7 Steep valley forms due to flowing water erosion are called .....  
 (a) canyon (b) sand dune (c) hill (d) delta
- 8 Which of the following landforms is steep and formed due to power of flowing water erosion?  
 (a) plains (b) valley (c) canyons (d) Mountains
- 9 The solar energy is converted into ..... energy in greenhouses.  
 (a) electrical (b) sound (c) thermal (d) Potential
- 10 When rocks break down into small pieces without change in its structure, this indicates the occurrence of..... process.  
 (a) mechanical weathering (b) chemical weathering (c) erosion by wind (d) erosion by water





- 11 The dropping of sediments in a new place, is known as .....  
 (a) weathering (b) deposition (c) freezing (d) erosion
- 12 Dissolving metals forming rocks is an example for.....  
 (a) mechanical weathering (b) weathering by wind (c) deposition in rivers (d) chemical weathering
- 13 Which of the following is from causes of mechanical weathering?  
 (a) Heat (b) Acid (c) Lichens (d) Oxygen
- 14 All the following are processes that can change Earth's surface, except .....  
 (a) digestion (b) erosion (c) weathering (d) deposition
- 15 ..... is the process in which sediments move to other place on the Earth's surface  
 (a) Erosion (b) Weathering (c) Deposition (d) Melting
- 16 ..... causes mechanical weathering.  
 (a) Oxygen (b) Acid rain (c) Lichens (d) Wind
- 17 ..... may cause chemical weathering or mechanical weathering.  
 (a) Oxygen (b) Water (c) Rocks (d) Lichens
- 18 Rusting of iron forming rocks is an example of .....  
 (a) mechanical weathering (b) weathering by wind (c) deposition in rivers (d) chemical weathering
- 19 From factors of mechanical weathering .....  
 (a) oxygen (b) acid rains (c) temperature (d) acids of lichens
- 20 Lichens produce ..... on rocks that dissolve minerals found in these rocks.  
 (a) oxygen (b) acids (c) water (d) rain
- 21 The unusable energy that produced from the electric lamp ..... energy  
 (a) potential (b) chemical (c) thermal (d) light
- 22 Limestone caves are formed due to the combination of.....  
 (a) dissolved minerals (b) red-colored rusts (c) living organisms (d) acid rains
- 23 The wasted energy in most devices in the form of ..... energy.  
 (a) electric (b) thermal (c) sound (d) kinetic





- 24 Rusting of a statue is an example of the action of ..... process.  
 (a) deposition (b) erosion (c) mechanical weathering (d) chemical weathering
- 25 Rocks can be broken down into small particles by the exposure to all of the following, except .....  
 (a) rain water (b) wind (c) moon (d) water waves
- 26 The formation of canyons takes .....  
 (a) few minutes (b) few hours (c) few days (d) many years
- 27 Which of the following does not cause mechanical weathering?  
 (a) Plant root (b) Acid rains (c) Wind movement (d) Water movement
- 28 Sand is formed due to breaking down of .....  
 (a) glass (b) wood (c) rocks (d) Plastic
- 29 Which of the following is evidence of erosion? forming of .....  
 (a) Sand dunes (b) Rock crumbs (c) Nile river delta (d) Sedimentary rock
- 30 The formation of sand dunes in Eastern Desert in Egypt is due to the movement of .....  
 (a) floods (b) winds (c) waves (d) torrents
- 31 The delta is formed when the river stream entering all of the following except .....  
 (a) A lake (b) A sea (c) A mountain (d) an ocean
- 32 Both hair dryer and electric water kettle produce ..... energy.  
 (a) thermal (b) light (c) electric (d) potential
- 33 When a river meets a sea or an ocean, a ..... is formed.  
 (a) canyon (b) volcano (c) mountain (d) delta
- 34 The output energy when playing drums is the ..... energy.  
 (a) chemical (b) light (c) sound (d) potential
- 35 The output energy when using the hair dryers is the ..... energy.  
 (a) electrical (b) potential (c) light (d) thermal
- 36 The stored energy inside the battery of a mobile phone is..... energy  
 (a) electrical (b) light (c) Chemical (d) sound
- 37 When you use the hand bell, the .... energy changed into sound energy.  
 (a) Electrical (b) potential (c) thermal (d) kinetic





- 38 The energy source in a toy car is the .....
- (a) engine (b) tires (c) battery (d) fuel
- 39 The idea of design and work of the robot that explores the surface of Mars depends on the idea of transforming .....
- (a) electric to kinetic (b) potential to kinetic (c) light to electric (d) kinetic to electric
- 40 The Sun provide us with ....., .....
- (a) Sound - Heat (b) Light - Electricity (c) Sound - Light (d) Heat - Light
- 41 Which of the following energy forms isn't produced from the Sun?
- (a) Thermal energy (b) Light energy (c) Kinetic energy (d) Radiation energy
- 42 When the blades of wind turbines rotate, this causes their turbines to rotate that leads to generating ..... energy.
- (a) electrical (b) solar (c) chemical (d) Potential
- 43 Water flows through turbines in hydroelectric dams to generate ..... energy
- (a) electrical (b) potential (c) solar (d) light
- 44 Among forms of fuel that present in car fuel stations are .....
- (a) gasoline - wood (b) natural gas - coal (c) wood - coal (d) natural gas - gasoline
- 45 All of the following are forms of fuel, except .....
- (a) natural gas (b) gasoline (c) coal (d) glass
- 46 ..... is considered as the main resource of energy on the Eath's surface
- (a) Gasoline (b) the sun (c) natural gas (d) the moon
- The output energy that is not from the job of hair dryer is .....
- 47 (a) chemical (b) sound (c) kinetic (d) light
- 48 During riding a bike, some kinetic energy is converted into ..... energy due to friction of bike's tire with the road.
- (a) chemical (b) potential (c) thermal (d) electrical
- 49 The produced energy from radio that reflects its main function is ..... energy
- (a) electric (b) sound (c) light (d) chemical
- 50 Input energy when using the hair dryer is ..... energy.
- (a) electrical (b) potential (c) light (d) kinetic





- 51 Wood is considered as .....
- (a) bio fuel (b) fossil fuel (c) liquid fuel (d) gaseous fuel
- 52 ..... is a type of biofuel which is made of wood.
- (a) Coal (b) Oil (c) Charcoal (d) Natural gas
- 53 All the following are forms of fossil fuel, except .....
- (a) water (b) coal (c) natural gas (d) Oil
- 54 Extreme heat and pressure under the earth's surface has an important role in forming .....
- (a) wood (b) wind (c) fossil fuel (d) biofuel
- 55 From examples of renewable resources of energy is .....
- (a) oil (b) wind (c) coal (d) natural gas
- 56 The sun and wind are considered as ..... resources of energy.
- (a) renewable (b) nonrenewable (c) destroyed (d) Harmful
- 57 The resource that we consume in a rate faster than its formation in nature.....
- (a) Wind (b) Water (c) Solar energy (d) Fossil fuel
- 58 In a battery of a toy car ..... energy changes into electrical energy
- (a) chemical (b) sound (c) thermal (d) kinetic
- 59 In water turbines, the ..... energy of water is changed into electrical energy
- (a) chemical (b) kinetic (c) thermal (d) light
- 60 Energy produced from flowing water of waterfalls, dams and turbines is called .....
- (a) mechanical energy (b) hydroelectric energy (c) chemical energy (d) kinetic energy
- 61 When a rock's surface is eroded due to weather factors such as air or water, this indicates the occurrence of..... process.
- (a) weathering (b) deposition (c) transfer (d) Erosion
- 62 Water turbines can generate more electricity by increasing the ..... energy of water that is stored behind dams.
- (a) light (b) sound (c) thermal (d) potential
- 63 Curiosity rover is designed to explore .....
- (a) Mars planet (b) the Moon (c) the sun (d) Earth planet





- 64 The ..... on the rover curiosity convert solar energy into ..... energy which is used to charge its batteries  
 (a) Solar panels electrical (b) Batteries electrical (c) Solar panels sound (d) Batteries sound
- 65 The output energy in the Mars exploration vehicle is ..... energy.  
 (a) electrical (b) light (c) kinetic (d) solar
- 66 By rubbing hands ..... energy is changed into thermal energy.  
 (a) chemical (b) kinetic (c) sound (d) potential
- 67 A plugged-in lamp can turn ..... energy to ..... energy.  
 (a) electrical, light (b) kinetic, light (c) chemical, light (d) chemical, heat
- 68 Fossil fuel is extracted from .....  
 (a) the Earth's surface (b) the underground (c) the food (d) the water
- 69 Fossil fuels need ..... to be formed under the Earth's surface.  
 (a) five years (b) ten years (c) hundreds of years (d) millions of years
- 70 All forms of fossil fuel are formed .....  
 (a) above earth's surface (b) under earth's surface (c) above water surface (d) in air around us
- 71 All the following are forms of fossil fuel, except .....  
 (a) water (b) coal (c) natural gas (d) oil
- 72 Among the following resources, we must conserve.....  
 (a) Solar energy - coal (b) Solar energy - wind (c) Solar energy and oil (d) Oil and coal
- 73 Energy produced from the electric bulb is ..... energy.  
 (a) chemical (b) sound (c) light (d) kinetic
- 74 All of the following are examples of renewable energy resources, except .....  
 (a) fossil fuel (b) waterfalls (c) wind (d) sunlight

Question 02

put ( true ) or ( false )

- 1 When iron in rocks rusts, the rock becomes stronger.
- 2 When water freezes, its volume increases.





- 3 Gravity pulls rocks down the mountainsides causing its erosion. ✓
- 4 Deposition process never change the shape of the land. ✗
- 5 Nile delta is a triangle-shaped mass of mud and other sediments. ✓
- 6 The volume of water decreases when it freezes. ✗
- 7 The Earth's surface never changes over time. ✗
- 8 Canyons can take millions of years to be formed ✓
- 9 Sea waves may cause erosion of beaches. ✓
- 10 Both sandcastles and canyons can be formed in few hours. ✗
- 11 Canyons are special types of valleys that have steep sides. ✓
- 12 Mechanical weathering causes changing in the structure of the rocks and new substance is formed. ✗
- 13 Erosion process is usually followed by weathering process. ✗
- 14 Deposition process never change the shape of the land. ✗
- 15 Plant roots growing in crack of rocks cause chemical weathering ✗
- 16 Wind can be considered as one of the factors that cause weathering. ✓
- 17 All physical factors of mechanical weathering lead to breaking down of rocks. ✓
- 18 Water causes both mechanical and chemical weathering. ✓
- 19 The process of deposition occurs when sediment down. ✓
- 20 Sandcastle wrecked during a long period of time. ✗
- 21 Hot and cold cause rocks to break. ✓
- 22 Wind can pick up sand grains in forming sand dunes. ✓
- 23 Weathering and deposition take place together ✗
- 24 Energy is created and destroyed. ✗
- 25 Hydropower is a clean energy resource. ✓
- 26 Deltas are formed by weathering process. ✗
- 27 Canyons are similar in their colors, texture and shapes. ✗
- 28 Strong wind and hurricanes carry sand grains for a short distance. ✗
- 29 Erosion is the process in which the small particles are moved to other places. ✓
- 30 Floods are one of the factors that causes water erosion. ✓





- 31 Gravity doesn't affect the small rocks that have been broken down from mountains. ☐
- 32 Both valleys and canyons often have river in their bottom. ☒
- 33 Small sand dunes are formed due to strong wind. ☐
- 34 Dunes are lowland areas which have gentle sloped sides. ☐
- 35 Small hills of sand found in a desert are known as canyons ☐
- 36 Mars is located a few meters away from Earth. ☐
- 37 Mars Curiosity can be operated from a distance ☒
- 38 A toy car can continue moving even after its battery runs out. ☐
- 39 Acid rains formed by combination of carbon dioxide with water vapor of air ☒
- 40 We have to conserve all forms of fuel. ☒
- 41 Coal was formed from the sea animals remains. ☐
- 42 Charcoal is formed from decomposition of remains of ancient plants ☐
- 43 Biofuels are from nonrenewable resources of energy. ☐
- 44 Fossil fuels that human made from corn can be replaced as it is used ☐
- 45 Generator in the electric power station changes potential energy into electrical energy ☐
- 46 Wind, oil and natural gas are natural resources used to generate clean energy ☐
- 47 Using solar energy is a way to conserve fossil fuels. ☒
- 48 Windmills always do their job all the time, because the wind never stop blowing ☐
- 49 The Sun is the main source of energy on Earth. ☒
- 50 The Sun provides the Earth with light and heat. ☒
- 51 Wind is a renewable energy resource. ☒
- 52 Energy cannot be transformed from one form to another ☐
- 53 Both electric bulb and electric heater produce thermal energy. ☒
- 54 The produced sound energy helps the hair dryer to do its function. ☐
- 55 Water is one of the sources of electricity production in Egypt ☒
- 56 Wood is a fossil fuel that is used in warming houses ☐
- 57 In wind turbines, the kinetic energy is converted into chemical energy. ☐





- 58 When water freezes, its volume decreases. ☐
- 59 A canyon may take one year only to be formed ☐
- 60 Smog doesn't cause any damage in the human respiratory system ☐
- 61 Using fossil fuels keeps the environment from pollution. ☐
- 62 Both coal and wood produce thermal energy when they are burned ☒
- 63 You need gasoline to move a bicycle ☐
- 64 When fuel is burned, it produces thermal energy. ☒
- 65 Green plants are one of the nonrenewable resources of energy. ☐
- 66 Water and gasoline are two renewable resource of energy ☐
- 67 Chemical energy is the energy that stored in food and battery. ☒
- 68 Energy may be destroyed inside different devices. ☐
- 69 Most of energy chains start with the moon ☐
- 70 There is a stored chemical energy inside the food we eat. ☒
- 71 Sand dunes are formed by erosion only. ☐
- 72 Machines make our life easier. ☒
- 73 Dams are built on river to control the wind flow. ☐
- 74 Rivers store kinetic energy. ☐
- 75 Dams are built on rivers in order to generate solar energy ☐
- 76 The watermills convert electrical energy into kinetic energy. ☐
- 77 Electricity generated by wind turbines is transmitted through wind. ☐
- 78 Using solar energy is a way to conserve fossil fuels. ☒
- 79 Electrical energy can be generated from both waterfalls and wind movement. ☒
- 80 The flow of water can be controlled to generate electricity in dams. ☒

### Question 03

Complete the following sentences

- 1 Water and wind may sculpt landscapes.
- 2 Sediment down is a process of deposition
- 3 Wadi Nakhr located in the country of Oman





- 4 Chemical weathering **changes** the structure of rocks.
- 5 **Canyons** are deep valleys carved by flowing water.
- 6 The origin of sand is the breaking down of some types of **rocks**
- 7 The process of transporting small rocks from one place to another by the help of water or wind is known as **erosion**
- 8 Wind, **water** and gravity are natural factors that control erosion process.
- 9 The shape of coastal rocks is affected by the force of **water** and wind.
- 10 Types of weathering can be classified into mechanical weathering and **chemical** weathering
- 11 **deposition** is the process of lying down of sediments after its erosion.
- 12 Lichens produce acids on rocks that dissolves its **minerals**
- 13 Formation of limestone caves is an example of **chemical** weathering.
- 14 Strong wind and hurricanes carry **sand grains** for a long distance.
- 15 Gentle winds can form small **sand dunes** like that present at sea beaches.
- 16 When strong **winds** blow in the desert, large sand dunes are formed.
- 17 Nile River Delta in Egypt is formed due to **deposition** process
- 18 When the force of wind **decreases**, the sand can't travel for a long distance
- 19 Rain water is pulled downhill forming small stream due to **gravity**
- 20 Blowing of strong **wind** in the desert may form large sand dunes.
- 21 The flow of energy till be with us is known as **energy chain**
- 22 Both valley and canyon often have **river** flow through their lowest points
- 23 Energy cannot be **created** nor **destroyed**
- 24 Light energy is converted into **chemical** energy which is stored in the form of sugar inside the trees.
- 25 Energy can neither be **created** nor **destroyed**, but only **changed** from one form to another
- 26 To operate an electric mixer, we use **electrical** energy.
- 27 Fuel is used as a source of **thermal** energy.
- 28 We need **thermal** energy for cooking food and warming houses.
- 29 Wood and **charcoal** are examples of biofuel, while **oil** and **coal** are examples of fossil fuel.
- 30 Factories may cause pollution of **air**, **soil** and **water** due to the chemical they use





- 31 Global warming causes the raise of temperature of earth and change its climate
- 32 Coal and oil can be used in electric power stations to generate electricity
- 33 Turbines in electric power stations are turned by steam and they produce kinetic energy to run the generator of the electric power stations
- 34 The electric generator changes kinetic energy into electric energy
- 35 In the washing machine electrical energy converted into kinetic energy.
- 36 When you ride a bicycle, the chemical energy stored in your body is converted into kinetic energy which causes the bicycle to move
- 37 Energy produced from the radio which helps the device do its main function is sound energy
- 38 The mobile phone converts chemical energy stored in its batteries into light energy and sound energy.
- 39 In water turbines, the kinetic energy of water movement is converted into a type of electrical energy which is called hydroelectric energy.
- 40 To avoid air pollution, we must use renewable resources of energy such as water.
- 41 The Sun provides Earth with light and heat
- 42 Dam used to control the flow of water and increases the potential energy of water to generate electricity.
- 43 Solar panels are used to generate electrical energy
- 44 Most of the energy we use is produces inside the sun
- 45 The energy that is produced from the battery and used to operate a toy car is electrical energy.
- 46 The electric lamp converts electrical energy into light and heat energy.
- 47 The energy can be changed from one form to another
- 48 In hand bell, kinetic energy is converted into sound energy.
- 49 Both wind and water movement produce kinetic energy that is used to rotate turbines to generate electrical energy.
- 50 Wind blows due to the difference in temperature between the cold air and the hot air.
- 51 By increasing the rotation of wind turbine blades, the wind turbine generates more electrical energy.
- 52 When the kinetic energy of wind increases, the speed of rotation of turbine blades will increase
- 53 Renewable energy resources include sun, wind and water
- 54 When we expose our bodies to the Sun, we feel warm
- 55 We can use solar energy in cooking by using curved mirror which collect and focus sun light onto metal pots to heat them.





- 56 Canyon is a special type of **valley** that has steep sides
- 57 After rocks weathering, the process of **erosion** occurs sand and Soil moved to another place
- 58 Formation of red rust in some rock is evidence of occurring **chemical weathering** process.
- 59 **weathering process** is the breaking down of rocks into smaller pieces.
- 60 Mechanical weathering **doesn't change** the structure of rocks.
- 61 Most caves are formed due **to chemical weathering**
- 62 The cycle of **freezing** and **melting** until rock breaks
- 63 The pieces of rock that are formed by weathering are known as **sediments**
- 64 Batteries which put inside the toy is considered **as source of energy**
- 65 The missions of mars depend on **vehicles** and **robots**
- 66 We must not **pollute** and **waste** of water.
- 67 Water from **dam on river** is used in electricity generation.

Question 04

write scientific term for each of the following

- |   |                                |
|---|--------------------------------|
| 1 Rising the temperatures of Earth.   | Global warming                 |
| 2 Rains that formed by combination of carbon dioxide with water vapor of air.           | Acid rains                     |
| 3 The clean energy resources that can be used in electric generation.                   | Renewable energy resources     |
| 4 Energy stored uphill water rivers.  | Gravitational potential energy |
| 5 Energy that makes turbines and generators in dams works.                              | Kinetic energy                 |
| 6 The process by which sediments lay down after its erosion.                            | Deposition process             |
| 7 A process in which small broken rocks move from a place by the help of wind or water. | Erosion                        |
| 8 Part of the plant grows inside cracks of rocks causing its weathering                 | Plant root.                    |
| 9 A gas in air combines with iron of some rocks and causes its weakness.                | Oxygen gas                     |







- |    |  |                               |
|----|--|-------------------------------|
| 10 | Moving fragments of rocks or soil around.  | Erosion                       |
| 11 | It is the process in which weathered rocks and soil are layed down or dropped by wind, water or gravity.         | Deposition                    |
| 12 | A fan-shaped (triangular) mass of sediment that is formed where a river enters a larger body of water like seas. | Delta                         |
| 13 | A hill of sand created by the wind.  | Sand dune                     |
| 14 | The pathway from input to output energy.   | energy chain                  |
| 15 | It is a special type of valleys which its sides are steep.   | Canyon                        |
| 16 | Energy is neither created nor destroyed, but it changes from one form to another.                                | Law of conservation of energy |
| 17 | The energy used to play a drum.  | Kinetic energy                |
| 18 | A kind of energy that is produced from the electrical heater and burning coal                                    | Thermal energy                |
| 19 | A device used to convert electrical energy into light energy   | Electric lamp                 |
| 20 | The energy produced when the wood of trees is burned   | Thermal energy                |
| 21 | Any substance that produces thermal energy when it is burned.  | Fuel                          |
| 22 | The energy produced when the wood is burned  | Thermal energy                |
| 23 | It is the main source of most forms of energy on the Earth's surface   | sun                           |
| 24 | It is a form of bio fuel made up of some types of plants such as grass and wood chips.                           | Liquid fuel                   |
| 25 | A robot vehicle that can be controlled from a distance and is used to explore the surface of mars                | mars rover<br>curiosity robot |
| 26 | The form of energy that is stored in battery of a remote-control toy cars.                                       | Chemical energy               |
| 27 | The energy produced from playing guitar.   | Sound energy                  |
| 28 | Energy that always produced due to friction.   | thermal energy                |
| 29 | The wasted energy of a computer  | Thermal energy                |
| 30 | The energy that is produced from the blender and helps it in doing its job.                                      | kinetic energy                |
| 31 | A mill that is turned by water flow.   | watermill                     |
| 32 | A mill that is operated by wind movement.  | windmill                      |
| 33 | The type of energy that is produced from wind turbines to operate different home devices.                        | Electrical energy             |





- 34 They help farmers in cold regions to plant crops which grow only in warm climate.
- 35 They are lowland areas between mountains and have gently sloped sides around rivers
- 36 A panel designed to absorb the energy of the Sun to generate electricity.
- 37 A turbine that uses the power of flowing air to generate electricity.
- 38 A turbine in which the kinetic energy of moving water is used to generate hydroelectric energy.
- 39 A build on the river that controls the flow of water and increases the potential energy of water
- 40 A type of electrical energy generated by water turbines in dams.
- 41 They are used in crushing grain.
- 42 It is a form of fossil fuel that was formed from dead plants under the effect of extreme heat and pressure
- 43 They are deep valleys carved by flowing water.
- 44 A process in which rocks are broken down into smaller particles.
- 45 The kind of weathering that changes the structure and color of rocks.
- 46 It is a type of weathering through which acids of lichens dissolve minerals of rocks.
- 47 Break the rocks into pieces without any change in its structure.

greenhouses

valley

Solar panel

Wind turbine

Water turbine

Dam

Hydroelectric energy

old windmills  
old watermills

Coal

Canyon

Weathering

Chemical weathering

Chemical weathering

Mechanical weathering

### Question 05

Give Reason for each of the following

- 1 Iron in rocks may rust.  
Due to reaction between iron and oxygen of air
- 2 Water plays an important role in the formation of limestone caves.  
Because water dissolves minerals in rocks then these dissolved minerals combine forming new shapes
- 3 The root of trees can be agent for shaping the Earth surface.  
Because plant root break down rock when it grows mechanical weathering





- 4 Formation of delta when a river meets a sea  
Because the sediments are deposited at the end of the river
- 5 Formation of small sand dunes on a beach  
Because they are formed by the effect of weak winds
- 6 Formation of large sand dunes at Western Desert in Egypt  
Because they are formed by the effect of strong winds
- 7 A river stream enters a sea.  
A delta may be formed
- 8 Trees and other plants are growing on both sides of small canyons.  
Due to flow of water stream which is needed by plants to grow
- 9 Mars rover curiosity operates for long period of time on Mars without any need to be charged  
Because of solar panels that use sunlight to recharge its batteries
- 10 Using wood of trees as a fuel has negative effects on the environment  
Because continuity of cutting down trees leads to deforestation
- 11 Wood is considered as a fuel.  
Because wood produces thermal energy when it is burned
- 12 We must conserve the fossil fuels  
Because fossil fuels are formed over millions of years, so they cannot be replaced as we use them
- 13 We must turn off lights that we are do not need  
To conserve electricity
- 14 Gasoline is burned inside a car engine  
When gasoline burned it produce Thermal energy  
Thermal energy change into kinetic energy which cause car move
- 15 Wind considered as renewable resources of energy  
Because it replaced shortly after using
- 16 Coal considered as non-renewable resources of energy  
Because it used at a rate faster than they renewed





- 17 Smog of cars is very dangerous to human health.  
Because it causes irritation of human's eyes and lungs
- 18 Fossil fuels cannot be replaced as quickly as they are used  
Because it takes millions of years to form
- 19 Generator are important in electric power stations  
Because it changes kinetic energy into electrical energy
- 20 Some rocks appear red .  
Because oxygen reacts with iron forming iron rust
- 21 Using wood as a fuel has negative effects on the environment  
Because cutting tree cause deforestation
- 22 Farmers must decrease the use of pesticides  
Because it causes pollution of water and soil
- 23 We feel warm at night although the sun is not visible in the sky  
Because atmosphere, land and water absorb thermal energy from sun
- 24 Hydroelectric dams are built on rivers  
To control water flow and increase the potential energy of water to generate electricity
- 25 Humans used windmills and watermills from hundreds of years ago  
To grind grains to make flour
- 26 Kinetic energy of wind affects the speed of wind turbine blades rotation  
when kinetic energy of wind increase  
→ the blades rotate faster  
→ wind turbine generates more electricity
- 27 Water turbines are placed in waterfalls areas  
Because it changes kinetic energy of water into electrical energy
- 28 Sometimes wind turbines are useless  
when wind doesn't blow  
→ wind turbine blades don't move  
→ don't generate electricity
- 29 The body has energy inside it  
because when we eat food, our body stores chemical energy





- 30** The energy can change its forms but it never goes away  
**Because of law of conservation of energy (energy neither be created nor destroyed but only converted from one form to another)**

**Question 06**

**What happens if ?**

- 1** A red-colored rust is formed on some rocks.  
**The rocks become weak and can break down easily**
- 2** Oxygen of air reacts with iron of some rocks.  
**It forms red-colored rust and rocks become weak and break down easily**
- 3** The lichens growing on rocks produce acids  
**It dissolves minerals in rock and break it down**
- 4** Acidic rain falls on rocks  
**It dissolves minerals in rock and break it down**
- 5** A river carries sediments meet a sea.  
**A delta may be formed**
- 6** Wind that is carrying sand particles hits a big rock  
**Sand dunes may be formed**
- 7** A river erodes the sediments of a mountain over a long period of time  
**A canyon may be formed**
- 8** The amount of fossil fuels if people don't conserve their use  
**Fossil fuels will run out on the earth**
- 9** Acid rain falls on building.  
**It dissolves rocks**
- 10** To the Earth's temperature if we use renewable resources of energy instead of fossil fuels  
**The earth's temperature will not increase**
- 11** Sunlight falls on a greenhouse  
**Radiant energy from sun changed into thermal energy**
- 12** Water of sea evaporates then condenses in air  
**Formation of clouds and rain may fall**





- 13 Wind doesn't blow in an area that contains many modern wind turbines  
**The blades of wind turbines don't move and it can't generate electricity**
- 14 The kinetic energy of a wind that is applied on the wind turbine increases  
**the blades rotate faster → wind turbine generate more electricity**
- 15 The presence of solar panels in some electrical devices  
**Solar energy changed into electrical energy**
- 16 The solar cell in a calculator exposed to sunlight  
**Solar energy changed into electrical energy that charge calculator battery**
- 17 There is difference in temperature of air around Earth  
**Wind blow**
- 18 On shaking a hand bell. (according to the change of energy)  
**Kinetic energy changes into sound energy**
- 19 On turning an electric lamp. (according to changing in energy)  
**The electrical energy changes into light and thermal energies**
- 20 The change of energy when you turn on the television  
**Electrical energy changes into sound, light and thermal energies**
- 21 You put your hands near a lighted lamp.  
**You feel warm, because some electrical energy is converted into thermal energy**
- 22 Rubbing your hand together (According to the change of energy)  
**Kinetic energy changes into thermal energy**
- 23 The car movement if fuel runs out in a car.  
**The car movement decreases until it stops**
- 24 The remains of marine were buried under the Earth's surface over millions of years  
**Formation of oil or natural gas**
- 25 People increase using wood a fuel  
**It causes deforestation (negative effects on the environment)**
- 26 The waves crash the beach.  
**It will cause erosion process and moving sand from place to another**





- 27 Sediments lays back down.  
**The deposition process will happen**
- 28 Making deforestation.  
**Cut down trees cause negative effects on the environment**
- 29 Water passing through black tubes.  
**Solar water heater will change solar energy into thermal energy so the water will heat up**
- 30 Stop building of dams.  
**We cannot control the flow of water and can't produce hydroelectric energy**

Question 07

cross the odd word

- 1 Weathering - Photosynthesis - Deposition - Erosion. **Photosynthesis process**
- 2 Acid rains – wind - plant root - temperature. **Acid rains**
- 4 Wood - Coal - Oil - Natural gas **Wood (biofuel)**
- 5 Gasoline - Coal - Natural gas - Wind. **Wind (renewable)**
- 6 Wood - natural gas – gasoline - glass. **glass**

Question 08

Answer the following questions

- 1 **Mention the type of weathering in the following:**
  - a Acid rain falls on rocks **chemical weathering**
  - b Freezing of water inside cracks **mechanical weathering**
- 2 What are the types of Weathering.  
**mechanical weathering – chemical weathering**
- 3 What are the factors that cause mechanical weathering?  
**1. wind                      2. temperature**
- 4 What is the role of wind in mechanical weathering?  
**Wind pushes the sand from a place to another, then friction occurs between sand and rocks causing their breaking down**





- 5 There are many types of sediments. Mention 2 types of them.  
**Sand and soil**
- 6 Determine the two factors that affect the Earth's surface.  
**Water – wind**
- 7 Mention one different between the formation of dunes and formation of delta.  
**Sand dunes are formed by deposition by wind  
Delta is formed by deposition by water**
- 8 How were the chemical weathering and mechanical weathering differ?  
**Mechanical weathering is the breaking down of rocks due to physical factors (wind – water) without changing their structure.  
Chemical weathering is the change in the structure of rocks due to chemical reactions**
- 9 How were the chemical weathering and mechanical weathering similar?  
**both of them break down rocks.**
- 10 Mention the different between erosion and deposition and rearrange the two processes.  
**Erosion is process of moving sediments from place to another.  
Deposition is the process of laying down sediments in new place.  
Erosion happens first then deposition.**
- 11 What is the definition of law of conservation energy?  
**Energy neither be Created nor destroyed but only converted from one form to another**
- 12 Explain the function of rover curiosity  
**Explore the surface of Mars**
- 13 Determine the causes of air pollution.  
**1- Burning of fossil fuels produce carbon dioxide gas  
2- Using chemicals in factories**
- 14 Determine the causes of global warming.  
**Because increasing the amount of carbon dioxide gas in the air causing rise in Earth's temperature**

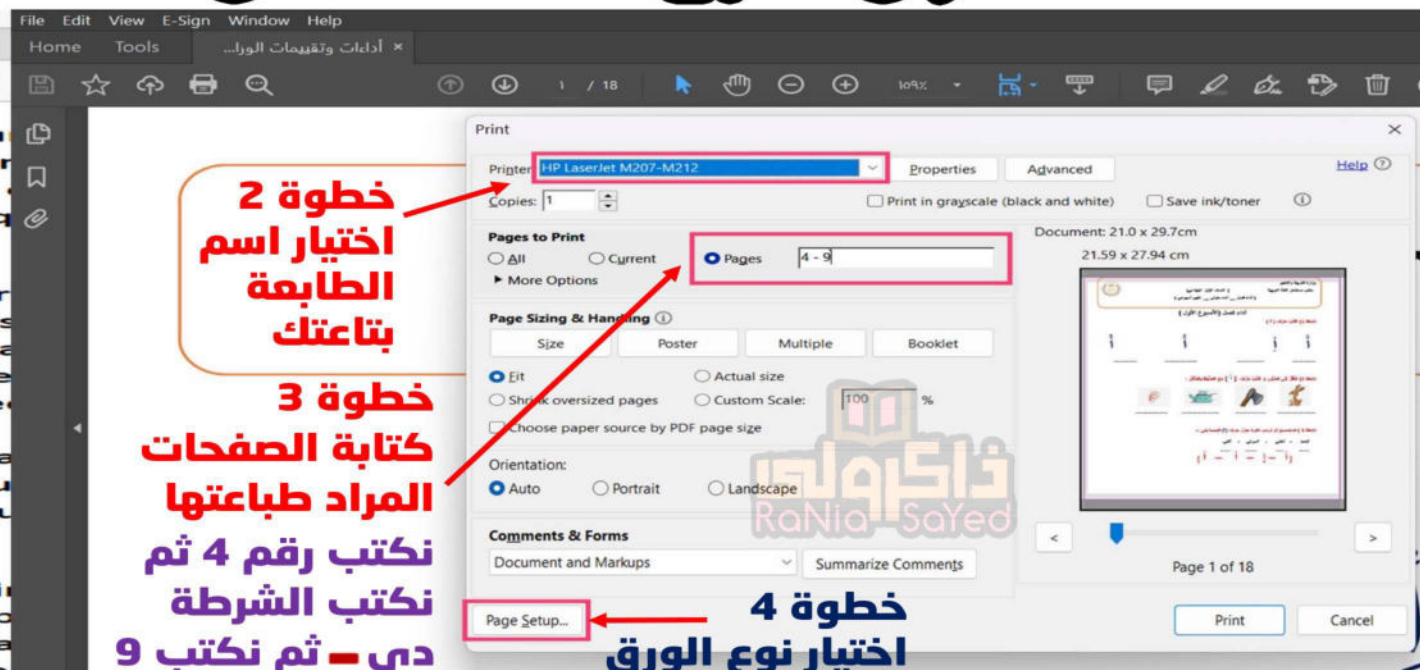
انتهت الأسئلة مع أطيب الامنيات بالنجاح والتوفيق

جميع اسئلة الشيت اسئلة رسمية من اسئلة التقييمات و امتحانات المحافظات و اسئلة كتاب المدرسة





# كيفية طباعة صفحات معينة من ملف معين مثلا ازاي نطبع الصفحات من صفحة 4 الى صفحة 9





حمل الآن

مجاناً وحصرياً

# المراجعة رقم (2)

## الترم الثاني





### 1 Complete the following sentences:

1. The batteries we put inside the toy car are considered a .....
2. The missions of Mars depend on ..... and .....
3. The stored energy in the food we eat is ..... energy.
4. The main source of energy on the Earth's surface is .....
5. The flow of energy from the Sun until it reaches us is known as .....
6. The energies produced by the hair dryer are ....., ..... and .....
7. A plant transforms the ..... energy of the Sun into the ..... energy stored in sugar.
8. When wood is burned, it releases .....
9. The energy coming from a power plant comes through burning ..... and .....
10. In the electrical bulb, the ..... energy is converted into light energy.
11. In plants, the ..... energy is converted into ..... energy.
12. The output energies in electric bulbs are ..... and ..... energies.
13. In the toy car that is operated by a battery, ..... energy is converted into ..... energy.
14. When you push on the bike pedals with your legs, ..... energy is converted into ..... energy.
15. Energy cannot be ..... nor .....
16. When you rub your hands, ..... energy is converted into ..... energy.
17. In a cell phone, ..... energy changes to other types of energy.
18. In the car that is operated by a spring, ..... energy is converted into ..... energy.
19. During running, ..... energy is converted into ..... energy.
20. In a radio, ..... energy is converted into ..... energy.
21. The output energy in an electric fan is ..... energy.







## 2 Put (✓) or (X):

1. The spacecraft takes about five months, usually longer to reach Mars. ( )
2. The solar energy is a clean source of energy. ( )
3. The energy stored in a battery is chemical energy. ( )
4. Curiosity Rover is used to explore the moon. ( )
5. Mars is located a few kilometers away from Earth. ( )
6. The distance between Earth and Mars is about 54 million km. ( )
7. Energy can be converted into another form. ( )
8. The toy car needs a source of energy to be operated. ( )
9. The energy stored in a soap dispenser is potential energy. ( )
10. The energy produced from the Sun is light energy only. ( )
11. The electric bulb produces light energy only. ( )
12. In the electric bell, electrical energy is changed into sound energy. ( )
13. The energy stored in food is chemical energy. ( )
14. The energy stored in the spring is kinetic energy. ( )
15. Energy cannot be created nor destroyed. ( )
16. Thermal energy is the only energy produced in the hair dryer. ( )
17. In the electric iron, electrical energy is converted into thermal energy. ( )
18. In the cell phone, electrical energy is stored in the battery. ( )

## 3 Write the scientific term:

1. It is the main source of energy on the Earth's surface. (.....)
2. It is the path that shows the energy flow from its source to the device.  
(.....)
3. It is the pathway from the input to the output energy. (.....)
4. It is the energy stored inside a tree. (.....)
5. Energy cannot be created nor destroyed. (.....)

## 4 Give reasons for:

1. There is a change in energy when burning wood.

.....

.....







2. The body has energy inside it.

3. The Sun is considered the main source of energy on the Earth's surface.

4. When you push on the bike pedals with your legs, heat energy is produced.

5. You feel heat when you hold your hands near a light bulb.

6. Energy can change forms, but it never disappears.

## 5 What happens when:

1. The hair dryer is operated?

2. You turn on an electric iron?

3. The electric heater is operated?

4. You hold your hands near a light bulb?

5. You push on the bike pedals?

6. Coal is burned?





**6 Answer the following questions:**

### 1 What is meant by:

**a. Law of conservation energy:**

**b. Energy chain:**

## Explain the function of the Curiosity Rover

**2 Explain the function of the Curiosity Rover.**

**3 Show the energy pathway from input to output in the following devices:**

**a. Electric heater**

b. TV

### c. Radio

**d. Washing machine**

Device	Input energy	Output energy
a. Electric heater		
b. TV		
c. Radio		
d. Washing machine		

#### 4 Show the energy chain in the hair dryer:

[illegible]



### 1 Complete the following sentences:

1. Cars and trucks need ..... to move.
2. Fuel is used in ..... and .....
3. Fuel is .....
4. By burning fuels, ..... is released.
5. The primary and main source of fuels is .....
6. The types of fuels include ..... and .....
7. .... and ..... are from the nonrenewable sources of energy.
8. .... and ..... can be used to make a liquid fuel.
9. .... is from the renewable fuels. ....
10. The remains of plants and animals are transformed into coal by the ..... and ..... of the Earth.
11. .... has a variety of negative impacts on the environment.
12. Oil and water are natural resources that humans can use to .....
13. Although water is a ..... resource of energy, we must not ..... or ..... it.
14. Oil is formed as a result of the .....  
.....
15. The ..... transforms kinetic energy into electrical energy.
16. Electricity is generated in the .....
17. We can use ..... and ..... to generate electricity.
18. Burning fuels for energy can produce .....
19. The smog from automobiles causes .....
20. The smog is full of ..... that we breathe in.
21. When we burn fossil fuels, ..... gas is formed.
22. Examples of fossil fuels are ..... and .....
23. Carbon dioxide form ..... with water.
24. Fuels can either be classified as .....







25. The solution to stop acidic rains and global warming is to .....
26. Oil and coal are from ..... fuels.
27. Solar energy and wind are ..... energy resources.
28. Acidic rains cause the pollution of .....

## 2 Put (✓) or (X):

1. The primary and main source of fuels is the moon. ( )
2. Fossil fuels are from the renewable sources of energy. ( )
3. Wind is a nonrenewable resource of energy. ( )
4. Cars and trucks don't need fuels to move. ( )
5. Fossil fuels can be used only in generating electricity. ( )
6. The generator transforms solar energy into electrical energy. ( )
7. Natural gas and coal are used in cooking food. ( )
8. Liquid fuels were formed from the remains of plants and animals that lived millions of years ago. ( )
9. Electricity has an important role in our lives. ( )
10. Hydropower is a clean energy resource. ( )
11. Hydropower is a nonrenewable resource of energy. ( )
12. A generator transforms electrical energy into kinetic energy. ( )
13. Fossil fuels are important in generating electricity. ( )
14. Heat is the only factor that affects the remains of living things to convert them into fossil fuels. ( )
15. Fossil fuels are from renewable energy resources. ( )
16. Water is from nonrenewable energy resources. ( )
17. Fossil fuels have negative impacts on the environment. ( )
18. Wind causes global warming or climate change. ( )
19. Oxygen combines with water vapor in the atmosphere and forms acidic rains. ( )
20. Fossil fuels are used in electric generation. ( )
21. Nitrogen is the cause of global warming. ( )







22. Renewable energy resources pollute the environment. ( )
23. Oxygen gas is formed by burning fossil fuels. ( )

**3 Write the scientific term:**

1. It is a substance that releases thermal energy when it is burned. ( )
2. It is the natural material that is used faster than it can be replaced. ( )
3. It is the natural material that can be renewed soon after it is used. ( )
4. They are fuels that were formed from the remains of ancient plants and animals. ( )
5. They are materials that formed as a result of the decomposition of sea creatures. ( )
6. They are fuels that are made from living things that can be planted. ( )
7. It is the rise in the temperatures of Earth. ( )
8. They are rains formed by the combination of carbon dioxide with water vapor of the air. ( )
9. It is the increase of carbon dioxide in the air. ( )

**4 Define the following:**

1. Fuels

.....

2. Biofuels

.....

3. Fossil fuels

.....

.....

4. Oil

.....

.....







## 5. Renewable resource of energy

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## 6. Nonrenewable resource of energy

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## 7. Acidic rains

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## 8. Global warming

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## 9. Air pollution

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## 5 Compare between biofuels and fossil fuels in terms of:

**Definition – The type of energy resources – Examples of each of them**

Device	Biofuels	Fossil Fuels
a. Definition	<hr/> <hr/> <hr/>	<hr/> <hr/> <hr/>
b. The Type of Energy Resources	<hr/> <hr/> <hr/>	<hr/> <hr/> <hr/>
c. Examples	<hr/> <hr/> <hr/>	<hr/> <hr/> <hr/>

## 6 Give reasons for:

### 1. Fossil fuels are nonrenewable sources of energy.

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2. Biofuels are renewable sources of energy.

3. Water is a renewable resource of energy.

4. Oil is a nonrenewable resource of energy.

5. We should not waste or pollute water.

6. Fossil fuels are one of the major causes of pollution.

7. Increasing the amount of carbon dioxide is dangerous for the environment.

8. Burning fossil fuels has many risks to the environment.

## 7 What happens when:

1. We cut down trees with a fast rate?

2. We burn fossil fuels?

3. Sea creatures are decomposed under the Earth's surface?

4. We waste and pollute water?







5. The amount of carbon dioxide increases in air?

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6. The carbon dioxide in the air increases and combines with water vapor?

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### 8 Answer the following questions:

1. Mention the nonrenewable and renewable resources of energy that are used in generating electricity.

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2. What can you do at home to conserve fuels and avoid wasting electricity?

1

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2

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3. Show how the fossil fuels is formed (in brief).

1

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2

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3

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4. Determine the causes of air pollution.

---

---

5. Determine the causes of global warming.

---

---

6. Determine the damages of burning fossil fuels.

---





# Pony Revision on Unit Concept 3.3

## Renewable Energy Resources

Weeks  
6 - 7

### 1 Put (✓) or (X):

1. Solar energy is a nonrenewable resource of energy. ( )
2. The input of solar panels system is electrical energy. ( )
3. Sunlight is known as radiant energy or radiation. ( )
4. Wind turbines can be used in electric generation. ( )
5. Generated electricity can be stored in batteries ( )
6. Wind is a nonrenewable resource of energy. ( )
7. In greenhouses, the radiant energy from the Sun is converted into electrical energy. ( )
8. The output of solar panels system is electrical energy. ( )
9. The concave mirror is used in collecting and focusing sunlight. ( )
10. Kinetic energy can be used in electric generation. ( )
11. Dams are used to generate electricity. ( )
12. Water and wind are clean resources of energy. ( )
13. Water may be a renewable or nonrenewable resource of energy. ( )
14. The gravitational potential energy of rivers water changes to heat energy. ( )
15. Water from the rivers above the dam stores kinetic energy. ( )
16. Electricity can be sent along wires to cities. ( )
17. We can generate electricity by wind and water. ( )
18. The electricity that is generated by water is called hydroelectricity. ( )

### 2 Complete the following sentences:

1. .... and .... are used to crush grains to make flour.
2. All plants and animals need the ..... to survive.
3. .... mirrors are used in collecting and focusing sunlight.
4. In greenhouses, radiant energy from the Sun is converted into ..... energy.
5. .... and .... are renewable energy resources.
6. Some mills use ....., and others use .....





7. The energy received from the Sun is called .....
8. Solar panels are used to .....
9. Water can be heated by passing through ..... color tubes.
10. The input of solar panels system is ..... energy.
11. The output of solar panels system is ..... energy.
12. Electricity generated from water is called .....
13. The water from rivers above the dam stores ..... energy.
14. The gravitational potential energy of rivers water is converted into ..... energy.
15. Water from the ..... built on ..... is used in electricity generation.
16. We can use ..... and ..... in electricity generation.
17. .... and ..... generate electricity in the dam.

### 3 Write the scientific term:

1. They are clean energy resources that can be used in electric generation. (.....)
2. It is the main energy resource that plants and animals need to survive. (.....)
3. They are types of mirrors that can be used to get heat, which can be used in cooking. (.....)
4. It is the energy stored uphill in water rivers. (.....)
5. It is the energy that makes turbines and generators in dams works. (.....)
6. It is the energy that is produced due to the operations of turbines and generators in dams. (.....)

### 4 Give reasons for:

1. A concave mirror can be used in cooking.

.....

.....

2. Solar energy is a clear energy resource.

.....







3. The Sun is very important to plants and animals.

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4. Turbines and generators in dams have important role.

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5. Renewable energy resources are very important.

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6. Dams have an important role in electricity generation.

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**5 What happens when:**

1. Water passes through the black tubes of the solar water heater?

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2. The concave mirror is used in cooking?

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3. The radiant energy enters the greenhouse?

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4. Rivers run downhill?

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5. Turbines and generators are stopped in dam?

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6. We stop building dams?

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**6 Answer the following questions:**

1. Determine the input and output energies in:

- |                        |                   |
|------------------------|-------------------|
| a. Wind turbines       | b. Water turbines |
| c. Solar panels system | d. Generators     |
| e. Greenhouse          |                   |

Device	Input energy	Output energy
a. Wind turbines		
b. Water turbines		
c. Solar panels system		
d. Generators		
e. Greenhouse		

2. Mention the important of greenhouses.

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# Pony Revision on Concept 4.1

## Breaking Down and Moving Rocks

Weeks  
9 - 10

### 1 Put (✓) or (X):

1. Water and wind are factors that shape the surface of Earth. ( )
2. Wind is the only factor that causes beach erosion. ( )
3. Sandcastles are wrecked during a long period of time. ( )
4. Canyons are formed by wind. ( )
5. Canyons are formed in a short period of time. ( )
6. Erosion and weathering changes the shape of the Earth's surface. ( )
7. The process by which rocks are broken into smaller pieces is known as weathering. ( )
8. The process of deposition occurs when sediments settle down. ( )
9. Weathering is a process by which rocks or soil move. ( )
10. There is one type of weathering. ( )
11. Living organisms cause chemical weathering. ( )
12. Oxygen is from the factors that cause mechanical weathering. ( )
13. Water runs over rocks and can dissolve some of the substances in them. ( )
14. Hot and cold can cause rocks to break. ( )
15. Chemical weathering changes the material a rock is actually made of. ( )
16. Most caves are formed due to chemical weathering. ( )
17. The cycle of melting and freezing continues until rocks break. ( )
18. Oxygen reacts with the iron in the rocks to create yellow-colored rust. ( )
19. Chemical weathering breaks the rocks into smaller pieces. ( )
20. Wadi Nakhr is in Oman. ( )
21. Gravity is a factor that causes erosion. ( )
22. The process that occurs when sands are moved from one place to another is known as deposition. ( )
23. If rocks become eroded, then eventually they must be deposited. ( )
24. Sediments can build new landforms. ( )
25. Gravity pulls rocks down mountainsides. ( )
26. Stronger winds will blow less sand and move it farther. ( )







27. When the sand is left in a new place, it has been deposited. ( )
28. Erosion and weathering are the same process. ( )
29. Weathering and deposition take place together. ( )

## 2 Complete the following sentences:

1. Wadi Nakhr canyon is located in .....
2. .... and ..... may sculpt landscapes.
3. .... and ..... are factors that shape the surface of Earth.
4. Canyons are formed by the action of ..... over many years.
5. The process by which rocks are broken into smaller pieces is known as .....
6. The process by which rocks or soil move to another place is known as .....
7. Sediments are dropped down by a process known as .....
8. Some changes to the Earth's surface take a ..... time, while others take a ..... time.
9. Sandcastles are wrecked in a .....
10. Coastal rocks are formed in a ..... period of time.
11. .... cause beach erosion.
12. Chemical weathering ..... the structure of rocks.
13. Mechanical weathering ..... the structure of rocks.
14. There are two types of weathering, which are ..... and .....
15. Weathering has many factors, such as ....., ....., and .....
16. Most caves are formed due to .....
17. Causes of chemical weathering are ....., ....., and .....
18. When the temperature drops, water freezes inside the cracks of rocks, expands, and causes the .....
19. The cycle of ..... and ..... continues until the rock breaks down.
20. Living organisms, such as lichens, cause ..... weathering.
21. The rust of rocks is caused by the .....







22. ...., ...., and ..... cause the breaking of rocks without changing their structure.
23. The process that occurs when sand, soil or rocks are moved from one place to another is known as .....
24. .... pulls rocks down mountainsides.
25. The pieces of rock that are formed by weathering are known as .....
26. Sediments build new .....
27. Delta formed by ..... process.
28. Dunes are formed due to .....
29. There are the relation between ..... and deposition.
30. From transferring factors ..... and .....
31. Sediments create river ..... سلسلة كتب الأستاذ .....
32. .... moves rocks and soil around.
33. The rocks may erode after ..... process.
34. .... pull sand away from beaches.
35. The sand piles form .....

**3 Write the scientific term:**

1. It is the process by which sediments are dropped down. (.....)
2. It is the process of moving fragments of rocks or soil around. (.....)
3. It is the process of breaking down rocks into small pieces. (.....)
4. It is the process of breaking down rocks into pieces without any change in their structure. (.....)
5. It is the process of breaking down rocks pieces with a change in their structure. (.....)
6. It is a type of weathering that is caused by the melting and freezing of water inside the rocks. (.....)
7. The process that occurs when sand or rocks are moved from one place to another. (.....)
8. The pieces of weathered rock that moved from its place. (.....)
9. 9. The process that happens after erosion and causes the formation of delta. (.....)







#### 4 Give reasons for:

1. Sea waves cause beach erosion.

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2. Weathering and erosion change the shape of Earth's surface.

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3. Weather factors change the Earth's surface.

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4. Some rocks appear red.

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5. Oxygen causes chemical weathering.

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6. Lichens cause chemical weathering.

---

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7. Weathering and erosion change landforms.

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8. Deposition process is a very important.

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#### 5 What happens when:

1. Rocks are broken into smaller pieces?

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2. Waves crash the beach?

.....

.....

3. Acid rains fall on the rocks?

.....

.....

4. Water finds its way into the rock cracks?

.....

.....

5. Oxygen reacts with the iron in rocks?

.....

.....

6. Rocks are broken down into small pieces.

.....

.....

7. The waves crash the beach.

.....

.....

**6 Answer the following questions:** سلسلة كتب

1. Determine the two factors that affect the Earth's surface.

.....

2. Determine the difference between weathering and erosion.

Weathering	Erosion
.....	.....
.....	.....

3. Show how the Earth's surface changes by time.

.....

.....

.....

.....







4. How are chemical weathering and mechanical weathering similar?

.....

5. Mention one different between chemical and mechanical weathering.

.....

6. Mention the difference between erosion and deposition and rearrange the two processes.

.....	.....
-------	-------

7. Mention the difference between weathering and deposition and which of them occur first?

.....	.....
.....	.....
.....	.....

**Weathering occurs first.**

8. Mention one different between the formation of dunes and formation of delta.

.....	.....
-------	-------





# Pony Revision on Concept 4.2

## Changing Landscapes

Weeks  
11 - 12 - 13

### 1 Put (✓) or (X):

1. The Small Canyon is located in Thailand. ( )
2. Canyons are similar to each other. ( )
3. Canyons form as a result of the weathering process only. ( )
4. Plants on both sides of canyons indicate the presence of water. ( )
5. The sides of canyons are flat. ( )
6. Canyons are formed in a few years. ( )
7. The Colored Canyon is found in Sinai. ( )
8. A canyon is formed due to weathering and deposition. ( )
9. The more water flows, the greater the erosion. ( )
10. There are layers in some canyons. ( )
11. Fast-moving rivers can cause a lot of erosion. ( )
12. As rivers drain, they create a variety of different landforms. ( )
13. The Grand Canyon is a landform in South America. ( )
14. The Grand Canyon is the largest canyon in the world. ( )
15. Gravity pulls rainwater downhill. ( )
16. A canyon is a type of valley. ( )
17. The greater the water flow, the greater the weathering. ( )
18. Larger streams or rivers produce greater changes. ( )
19. Rivers can change a landform very slowly. ( )

### 2 Complete the following sentences:

1. Water and wind are factors that cause \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.
2. A canyon is formed by the \_\_\_\_\_ and \_\_\_\_\_ processes.
3. A canyon is formed in \_\_\_\_\_ of years.
4. The Colored Canyon is found in \_\_\_\_\_.
5. Canyons differ in \_\_\_\_\_ and \_\_\_\_\_.
6. The sides of canyons are \_\_\_\_\_.
7. Plants on both sides of canyons indicate the presence of \_\_\_\_\_.
8. Wadi Nakhr is found in \_\_\_\_\_.





9. A canyon may be formed by weathering and erosion with the effect of ..... and .....
10. Examples of canyons are ..... and .....
11. The side of a canyon is .....
12. Erosion and deposition can lead to the formation of some new .....
13. The greater the water flow, the greater the .....
14. A canyon is a type of .....
15. The shape of a valley is formed depending on several factors, such as ..... and .....
16. Fast-moving rivers can cause a lot of .....
17. The Grand Canyon is a landform in the .....
18. .... pulls rain water downhill.
19. .... or rivers produce greater changes.

### 3 Write the scientific term:

1. It is the canyon that is located in Jordan. (.....)
2. It is the canyon that is located in Sinai. (.....)
3. It is the canyon that is located in Thailand. (.....)
4. It is a type of valley with steep sides. (.....)
5. It is a lowland area between mountains. (.....)
6. They are landforms that form by the processes of erosion and deposition. (.....)

### 4 Give reasons for:

1. There are plants at the sides of a small canyon.

.....

2. Canyons have sloped sides.

.....

3. Rivers can change the landform.

.....

.....

.....







4. Rainwater falls downhill to form small streams.

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5. A canyon does not form quickly.

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6. Gravity has an important role in the formation of canyons.

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**5 What happens when:**

1. Rivers drain?

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2. The water flow is greater?

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3. The water is traveling down a steep slope?

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**6 Answer the following questions:**

1. Explain why it might be useful to recognize signs of weathering, erosion, and deposition.

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2. What are the similarities between canyons and valleys?

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3. What are the differences between canyons and valleys?

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### 1 Complete the following sentences:

1. The batteries we put inside the toy car are considered a source of energy.
2. The missions of Mars depend on vehicles and robots.
3. The stored energy in the food we eat is chemical energy.
4. The main source of energy on the Earth's surface is the Sun.
5. The flow of energy from the Sun until it reaches us is known as energy chain.
6. The energies produced by the hair dryer are thermal, kinetic, and sound.
7. A plant transforms the light energy of the Sun into the chemical energy stored in sugar.
8. When wood is burned, it releases thermal energy.
9. The energy coming from a power plant comes through burning coal and natural gas.
10. In the electrical bulb, the electrical energy is converted into light energy.
11. In plants, the light energy is converted into chemical energy.
12. The output energies in electric bulbs are light and thermal energies.
13. In the toy car that is operated by a battery, chemical energy is converted into kinetic energy.
14. When you push on the bike pedals with your legs, chemical energy is converted into kinetic energy.
15. Energy cannot be created nor destroyed.
16. When you rub your hands, kinetic energy is converted into thermal energy.
17. In a cell phone, electrical energy changes to other types of energy.
18. In the car that is operated by a spring, potential energy is converted into kinetic energy.
19. During running, chemical energy is converted into kinetic energy.
20. In a radio, electrical energy is converted into sound energy.
21. The output energy in an electric fan is kinetic energy.







## 2 Put (✓) or (X):

1. The spacecraft takes about five months, usually longer to reach Mars. (X)
2. The solar energy is a clean source of energy. (✓)
3. The energy stored in a battery is chemical energy. (✓)
4. Curiosity Rover is used to explore the moon. (X)
5. Mars is located a few kilometers away from Earth. (X)
6. The distance between Earth and Mars is about 54 million km. (✓)
7. Energy can be converted into another form. (✓)
8. The toy car needs a source of energy to be operated. (✓)
9. The energy stored in a soap dispenser is potential energy. (✓)
10. The energy produced from the Sun is light energy only. (X)
11. The electric bulb produces light energy only. (X)
12. In the electric bell, electrical energy is changed into sound energy. (✓)
13. The energy stored in food is chemical energy. (✓)
14. The energy stored in the spring is kinetic energy. (X)
15. Energy cannot be created nor destroyed. (✓)
16. Thermal energy is the only energy produced in the hair dryer. (X)
17. In the electric iron, electrical energy is converted into thermal energy. (✓)
18. In the cell phone, electrical energy is stored in the battery. (X)

## 3 Write the scientific term:

1. It is the main source of energy on the Earth's surface. (**The Sun**)
2. It is the path that shows the energy flow from its source to the device. (**Energy chain**)
3. It is the pathway from the input to the output energy. (**Energy chain**)
4. It is the energy stored inside a tree. (**Chemical energy**)
5. Energy cannot be created nor destroyed. (**Law of Conservation of Energy**)

## 4 Give reasons for:

1. There is a change in energy when burning wood.

**Because the chemical energy stored inside the wood changes into thermal energy.**







2. The body has energy inside it.

**Because when we eat food, our body stores chemical energy.**

3. The Sun is considered the main source of energy on the Earth's surface.

**Because all energy chains on the Earth start with the Sun.**

4. When you push on the bike pedals with your legs, heat energy is produced.

**Because the chemical energy stored in the food changes into kinetic energy, then some of the kinetic energy changes into thermal energy due to the friction force between the tires and the road.**

5. You feel heat when you hold your hands near a light bulb.

**Because the light bulb changes electrical energy into light energy and thermal energy.**

6. Energy can change forms, but it never disappears.

**Because energy can neither be created nor destroyed, but only converted from one form to another.**

## 5 What happens when:

1. The hair dryer is operated?

**Electrical energy changes into thermal energy, kinetic energy, and sound energy.**

2. You turn on an electric iron? سلسلة كتب الأستاذ

**The electrical energy changes into thermal energy.**

3. The electric heater is operated?

**Electrical energy changes into thermal energy.**

4. You hold your hands near a light bulb?

**I feel warm because some of the electrical energy changes into thermal energy.**

5. You push on the bike pedals?

**The chemical energy stored in my body changes into kinetic energy, and then part of the kinetic energy changes into thermal energy due to the friction of the tires and the road.**

6. Coal is burned?

**The chemical energy stored inside coal changes into thermal energy.**







## 6 Answer the following questions:

### 1 What is meant by:

a. Law of conservation energy:

**Energy can neither be created nor destroyed, but only converted from one form to another.**

b. Energy chain:

**It is a way to describe the energy flow when we use different devices.**

### 2 Explain the function of the Curiosity Rover.

**It is used to explore the surface of Mars.**

### 3 Show the energy pathway from input to output in the following devices:

a. Electric heater

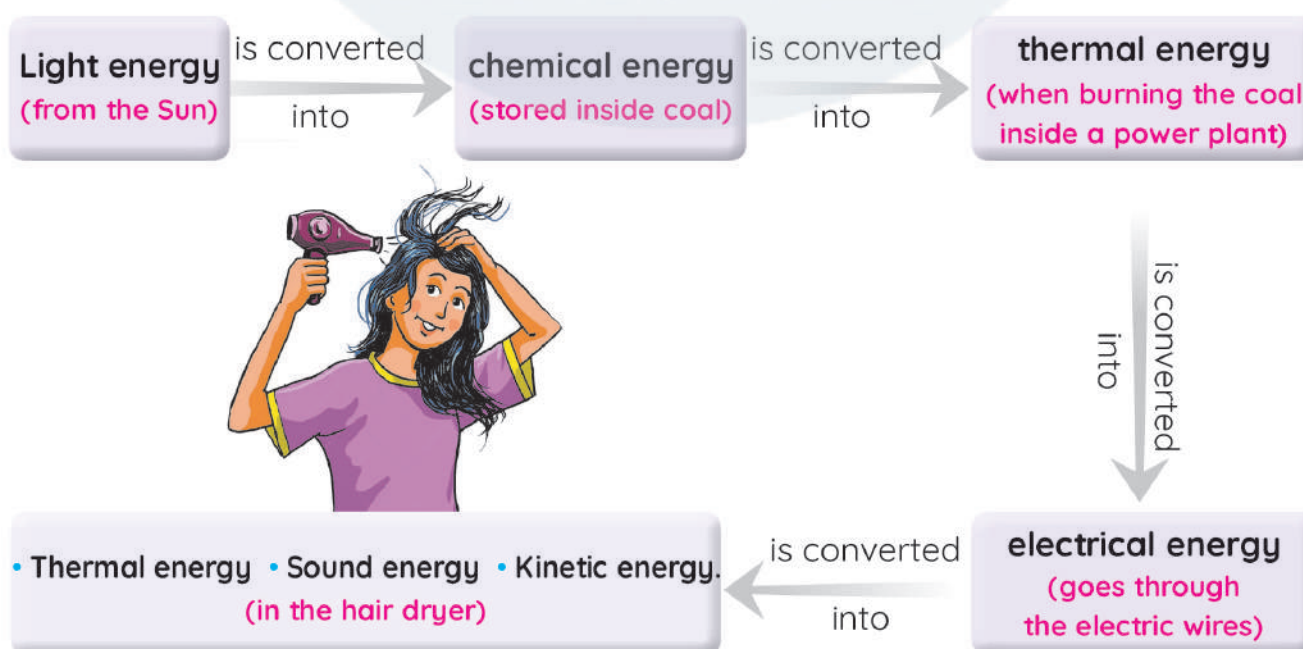
b. TV

c. Radio

d. Washing machine

Device	Input energy	Output energy
a. Electric heater	Electrical energy	Thermal energy
b. TV	Electrical energy	Sound and light energies
c. Radio	Electrical energy	Sound energy
d. Washing machine	Electrical energy	Kinetic and sound energies

### 4 Show the energy chain in the hair dryer:





### 1 Complete the following sentences:

1. Cars and trucks need fuel (gasoline) to move.
2. Fuel is used in cooking food and warming houses.
3. Fuel is any substance that produces thermal energy when it is burned.
4. By burning fuels, thermal energy is released.
5. The primary and main source of fuels is the Sun.
6. The types of fuels include biofuels and fossil fuels.
7. Oil and coal are from the nonrenewable sources of energy.
8. Corn and grass can be used to make a liquid fuel.
9. Biofuel is from the renewable fuels.
10. The remains of plants and animals are transformed into coal by the heat and pressure of the Earth.
11. Deforestation has a variety of negative impacts on the environment.
12. Oil and water are natural resources that humans can use to generate energy.
13. Although water is a renewable resource of energy, we must not pollute or waste it.
14. Oil is formed as a result of the effect of extreme heat and pressure on the remains of marine living organisms.
15. The generator transforms kinetic energy into electrical energy.
16. Electricity is generated in the power station.
17. We can use oil and coal to generate electricity.
18. Burning fuels for energy can produce smog, which pollutes the air.
19. The smog from automobiles causes irritation of humans' eyes and lungs.
20. The smog is full of harmful small particles that we breathe in.
21. When we burn fossil fuels, carbon dioxide gas is formed.
22. Examples of fossil fuels are coal and natural gas.







23. Carbon dioxide form acid rain with water.
24. Fuels can either be classified as biofuels or fossil fuels.
25. The solution to stop acidic rains and global warming is to decrease the amount of fossil fuels burned to generate energy.
26. Oil and coal are from fossil fuels.
27. Solar energy and wind are renewable energy resources.
28. Acidic rains cause the pollution of water.

## 2 Put (✓) or (X):

1. The primary and main source of fuels is the moon. (X)
2. Fossil fuels are from the renewable sources of energy. (X)
3. Wind is a nonrenewable resource of energy. (X)
4. Cars and trucks don't need fuels to move. (X)
5. Fossil fuels can be used only in generating electricity. (X)
6. The generator transforms solar energy into electrical energy. (X)
7. Natural gas and coal are used in cooking food. (✓)
8. Liquid fuels were formed from the remains of plants and animals that lived millions of years ago. (X)
9. Electricity has an important role in our lives. (✓)
10. Hydropower is a clean energy resource. (✓)
11. Hydropower is a nonrenewable resource of energy. (X)
12. A generator transforms electrical energy into kinetic energy. (X)
13. Fossil fuels are important in generating electricity. (✓)
14. Heat is the only factor that affects the remains of living things to convert them into fossil fuels. (X)
15. Fossil fuels are from renewable energy resources. (X)
16. Water is from nonrenewable energy resources. (X)
17. Fossil fuels have negative impacts on the environment. (✓)
18. Wind causes global warming or climate change. (X)
19. Oxygen combines with water vapor in the atmosphere and forms acidic rains. (X)







- 20. Fossil fuels are used in electric generation. (✓)
- 21. Nitrogen is the cause of global warming. (X)
- 22. Renewable energy resources pollute the environment. (X)
- 23. Oxygen gas is formed by burning fossil fuels. (X)

**3 Write the scientific term:**

- 1. It is a substance that releases thermal energy when it is burned. **(Fuel)**
- 2. It is the natural material that is used faster than it can be replaced.  
**(Nonrenewable resource of energy)**
- 3. It is the natural material that can be renewed soon after it is used.  
**(Renewable resource of energy)**
- 4. They are fuels that were formed from the remains of ancient plants and animals. **(Fossil fuels)**
- 5. They are materials that formed as a result of the decomposition of sea creatures. **(Oil – Natural gas)**
- 6. They are fuels that are made from living things that can be planted. **(Biofuels)**
- 7. It is the rise in the temperatures of Earth. **(Global warming)**
- 8. They are rains formed by the combination of carbon dioxide with water vapor of the air. **(Acid rains)**
- 9. It is the increase of carbon dioxide in the air. **(Air pollution)**

**4 Define the following:**

**1. Fuels**

**They are substances that produce thermal energy when they are burned.**

**2. Biofuels**

**They are fuels made from living organisms that can be planted.**

**3. Fossil fuels**

**They are fuels formed from the remains of plants and animals that were decomposed over millions of years ago.**

**4. Oil**

**It is a form of fossil fuel that is formed from the decomposition of the remains of sea animals over millions of years ago.**







**5. Renewable resource of energy**

**It is a natural resource that can be renewed (replaced) soon after it is used.**

**6. Nonrenewable resource of energy**

**It is a natural resource that is used faster than that it can be renewed (replaced).**

**7. Acidic rains**

**They are formed when carbon dioxide gas combines with water in the air, it causes death of trees, dissolve of building rocks.**

**8. Global warming**

**It is a phenomenon in which the Earth's temperature increases when carbon dioxide gas increases in the air.**

**9. Air pollution**

**It is the smog produced from cars and factories that pollute the air and cause irritation of humans' eyes and lungs and damage of the tissues of the respiratory system.**

**5 Compare between biofuels and fossil fuels in terms of:**

**Definition – The type of energy resources – Examples of each of them**

Device	Biofuels <small>بناقلات</small>	Fossil Fuels
a. Definition	They are fuels made from living organisms that can be planted.	They are fuels formed from the remains of plants and animals that were decomposed over millions of years ago.
b. The Type of Energy Resources	Renewable energy resources	Nonrenewable energy resources
c. Examples	Wood – Charcoal – Grass – Corn – Wood chips	Oil – Natural gas – Coal







## 6 Give reasons for:

1. Fossil fuels are nonrenewable sources of energy.

**Because fossil fuels take millions of years to be formed and they are used faster than they are formed.**

2. Biofuels are renewable sources of energy.

**Because biofuels can be renewed soon after they are used.**

3. Water is a renewable resource of energy.

**Because it is a natural resource that can be renewed (replaced) soon after it is used.**

4. Oil is a nonrenewable resource of energy.

**Because it is used faster than it can be renewed (replaced).**

5. We should not waste or pollute water.

**Because water may not be replaced as quickly as we need it and water is very important for all living organisms to survive.**

6. Fossil fuels are one of the major causes of pollution.

**Because burning fossil fuels produces carbon dioxide gas, which combines with the water vapor in the air, causing acid rains and also it produces smog that pollutes the air.**

7. Increasing the amount of carbon dioxide is dangerous for the environment.

**Because it causes global warming and acid rains.**

8. Burning fossil fuels has many risks to the environment.

**Burning fossil fuels produces carbon dioxide gas, which causes acid rains and global warming.**

## 7 What happens when:

1. We cut down trees with a fast rate?

**It leads to deforestation, which has negative effects on the environment.**

2. We burn fossil fuels?

**Thermal energy is produced.**







3. Sea creatures are decomposed under the Earth's surface?

**Oil or natural gas is formed.**

4. We waste and pollute water?

**Water may not be replaced as quickly as we need it.**

5. The amount of carbon dioxide increases in air?

**It leads to the formation of a layer in the atmosphere that traps heat on the Earth, causing a slow rise in the Earth's temperature, which is known as global warming.**

6. The carbon dioxide in the air increases and combines with water vapor?

**It leads to the formation of acid rains, which causes the death of trees, a change in the chemical nature of soil and lakes and dissolving some rocks in buildings.**

## **8 Answer the following questions:**

1. Mention the nonrenewable and renewable resources of energy that are used in generating electricity.

**- We use nonrenewable resources of energy, such as coal, oil, and natural gas to generate electricity.**

**- We use renewable energy resource, such as water and wind to generate electricity.**

2. What can you do at home to conserve fuels and avoid wasting electricity?

**1 Turning off the lights when I don't need them**

**2 Unplugging unused electric devices**

3. Show how the fossil fuels is formed (in brief).

**1 Over millions of years ago, living organisms died.**

**2 Their remains were covered with layers of sediments and rocks.**

**3 Those remains turned into fossil fuels by the effect of heat and pressure.**

4. Determine the causes of air pollution.

**1- Burning of fossil fuels produces smog that pollutes the air.**

**2- Using chemicals in factories**







**5. Determine the causes of global warming.**

**Increasing the amount of carbon dioxide gas in the air from burning fossil fuels forms a layer in the atmosphere that traps heat on the Earth, causing a rise in the Earth's temperature.**

**6. Determine the damages of burning fossil fuels.**

**Burning fossil fuels produces carbon dioxide gas, which causes acid rains and global warming.**





# Pony Revision on Unit Concept 3.3

## Renewable Energy Resources

Weeks  
6 - 7

### 1 Put (✓) or (X):

1. Solar energy is a nonrenewable resource of energy. (X)
2. The input of solar panels system is electrical energy. (X)
3. Sunlight is known as radiant energy or radiation. (✓)
4. Wind turbines can be used in electric generation. (✓)
5. Generated electricity can be stored in batteries (X)
6. Wind is a nonrenewable resource of energy. (X)
7. In greenhouses, the radiant energy from the Sun is converted into electrical energy. (X)
8. The output of solar panels system is electrical energy. (✓)
9. The concave mirror is used in collecting and focusing sunlight. (✓)
10. Kinetic energy can be used in electric generation. (✓)
11. Dams are used to generate electricity. (✓)
12. Water and wind are clean resources of energy. (✓)
13. Water may be a renewable or nonrenewable resource of energy. (X)
14. The gravitational potential energy of rivers water changes to heat energy. (X)
15. Water from the rivers above the dam stores kinetic energy. (X)
16. Electricity can be sent along wires to cities. (✓)
17. We can generate electricity by wind and water. (✓)
18. The electricity that is generated by water is called hydroelectricity. (✓)

### 2 Complete the following sentences:

1. Windmills and watermill are used to crush grains to make flour.
2. All plants and animals need the Sun to survive.
3. Concave (curved or convergent) mirrors are used in collecting and focusing sunlight.
4. In greenhouses, radiant energy from the Sun is converted into thermal energy.
5. Wind and water are renewable energy resources.
6. Some mills use wind blowing, and others use water flow.







7. The energy received from the Sun is called **solar energy**.
8. Solar panels are used to **generate electricity**.
9. Water can be heated by passing through **black** color tubes.
10. The input of solar panels system is **solar** energy.
11. The output of solar panels system is **electrical** energy.
12. Electricity generated from water is called **hydroelectricity**.
13. The water from rivers above the dam stores **gravitational potential** energy.
14. The gravitational potential energy of rivers water is converted into **kinetic** energy.
15. Water from the **dams** built on **rivers** is used in electricity generation.
16. We can use **wind** and **water** in electricity generation.
17. **Water turbines** and **generators** generate electricity in the dam.

### 3 Write the scientific term:

1. They are clean energy resources that can be used in electric generation.  
(Renewable energy resources)
2. It is the main energy resource that plants and animals need to survive.  
(The Sun)
3. They are types of mirrors that can be used to get heat, which can be used in cooking.  
(Concave (curved or convergent) mirrors)
4. It is the energy stored uphill in water rivers. (Gravitational potential energy)
5. It is the energy that makes turbines and generators in dams works.  
(Kinetic energy)
6. It is the energy that is produced due to the operations of turbines and generators in dams.  
(Hydroelectric energy)

### 4 Give reasons for:

1. A concave mirror can be used in cooking.  
Because it collects and focuses sunlight on the cooking pan to cook the food inside it.
2. Solar energy is a clear energy resource.  
Because solar energy doesn't pollute the environment.







3. The Sun is very important to plants and animals.

**Because the Sun is the main source of energy on the Earth and plants need sunlight to make its own food.**

4. Turbines and generators in dams have important role.

**Because the kinetic energy of flowing water rotates the water turbines, which operates generators to generate hydroelectricity.**

5. Renewable energy resources are very important.

**Because they are clean natural resources that are replaced at a faster rate than they are consumed and we can use them to generate electricity.**

6. Dams have an important role in electricity generation.

**Because dams hold water to increase the gravitational potential energy of water, which changes into kinetic energy when water moves downhill to operate water turbines and generate hydroelectricity.**

## 5 What happens when:

1. Water passes through the black tubes of the solar water heater?

**Water heats up, then it is stored in a water tank to be used later.**

2. The concave mirror is used in cooking?

**Because it collects and focuses the sunlight on the cooking pan to cook the food inside it.**

3. The radiant energy enters the greenhouse?

**The radiant energy changes into thermal energy, which warms the inside of the greenhouse.**

4. Rivers run downhill?

**The gravitational potential energy changes into kinetic energy, which rotates the water turbines that operate the generator to generate electricity.**

5. Turbines and generators are stopped in dam?

**Hydroelectricity cannot be generated.**







6. We stop building dams?

**We cannot control the flow of water and cannot produce hydroelectricity.**

**6 Answer the following questions:**

1. Determine the input and output energies in:

- a. Wind turbines
- b. Water turbines
- c. Solar panels system
- d. Generators
- e. Greenhouse

Device	Input energy	Output energy
a. Wind turbines	Kinetic energy of wind	Electrical energy
b. Water turbines	Kinetic energy of water	Hydroelectric energy
c. Solar panels system	Solar energy	Electrical energy
d. Generators	Kinetic energy	Electrical energy
e. Greenhouse	Radiant energy	Thermal energy

2. Mention the important of greenhouses.

**Greenhouses help farmers to plant the crops that only grow in warm climate.**





# Pony Revision on Concept 4.1

## Breaking Down and Moving Rocks

Weeks  
9 - 10

### 1 Put (✓) or (X):

1. Water and wind are factors that shape the surface of Earth. (✓)
2. Wind is the only factor that causes beach erosion. (X)
3. Sandcastles are wrecked during a long period of time. (X)
4. Canyons are formed by wind. (X)
5. Canyons are formed in a short period of time. (X)
6. Erosion and weathering changes the shape of the Earth's surface. (✓)
7. The process by which rocks are broken into smaller pieces is known as weathering. (✓)
8. The process of deposition occurs when sediments settle down. (✓)
9. Weathering is a process by which rocks or soil move. (X)
10. There is one type of weathering. (X)
11. Living organisms cause chemical weathering. (✓)
12. Oxygen is from the factors that cause mechanical weathering. (X)
13. Water runs over rocks and can dissolve some of the substances in them. (✓)
14. Hot and cold can cause rocks to break. (✓)
15. Chemical weathering changes the material a rock is actually made of. (✓)
16. Most caves are formed due to chemical weathering. (✓)
17. The cycle of melting and freezing continues until rocks break. (✓)
18. Oxygen reacts with the iron in the rocks to create yellow-colored rust. (X)
19. Chemical weathering breaks the rocks into smaller pieces. (✓)
20. Wadi Nakhr is in Oman. (✓)
21. Gravity is a factor that causes erosion. (✓)
22. The process that occurs when sands are moved from one place to another is known as deposition. (X)
23. If rocks become eroded, then eventually they must be deposited. (✓)
24. Sediments can build new landforms. (✓)
25. Gravity pulls rocks down mountainsides. (✓)
26. Stronger winds will blow less sand and move it farther. (X)







27. When the sand is left in a new place, it has been deposited. (✓)
28. Erosion and weathering are the same process. (X)
29. Weathering and deposition take place together. (X)

**2 Complete the following sentences:**

1. Wadi Nakhr canyon is located in Oman.
2. Water and wind may sculpt landscapes.
3. Water and wind are factors that shape the surface of Earth.
4. Canyons are formed by the action of water over many years.
5. The process by which rocks are broken into smaller pieces is known as weathering.
6. The process by which rocks or soil move to another place is known as erosion.
7. Sediments are dropped down by a process known as deposition.
8. Some changes to the Earth's surface take a long time, while others take a short time.
9. Sandcastles are wrecked in a few minutes.
10. Coastal rocks are formed in a long period of time.
11. Water waves cause beach erosion.
12. Chemical weathering changes the structure of rocks.
13. Mechanical weathering doesn't change the structure of rocks.
14. There are two types of weathering, which are mechanical weathering and chemical weathering.
15. Weathering has many factors, such as wind, water, and temperature.
16. Most caves are formed due to chemical weathering.
17. Causes of chemical weathering are oxygen, acid rain, and acid produced by lichens.
18. When the temperature drops, water freezes inside the cracks of rocks, expands, and causes the cracks to become wider.
19. The cycle of freezing and melting continues until the rock breaks down.
20. Living organisms, such as lichens, cause chemical weathering.
21. The rust of rocks is caused by the reaction of the oxygen in the air with the iron in the rocks.







22. **Plant roots**, **wind**, and **water** cause the breaking of rocks without changing their structure.
23. The process that occurs when sand, soil or rocks are moved from one place to another is known as **erosion**.
24. **Gravity** pulls rocks down mountainsides.
25. The pieces of rock that are formed by weathering are known as **sediments**.
26. Sediments build new **landforms**.
27. Delta formed by **deposition** process.
28. Dunes are formed due to **deposition of sand by the effect of wind**.
29. There are the relation between **erosion** and deposition.
30. From transferring factors **wind**, **water** and **gravity**.
31. Sediments create river **delta**.
32. **Erosion** moves rocks and soil around.
33. The rocks may erode after **weathering** process.
34. **Sea waves** pull sand away from beaches.
35. The sand piles form **sand dunes**.

### 3 Write the scientific term:

1. It is the process by which sediments are dropped down. (**Deposition**)
2. It is the process of moving fragments of rocks or soil around. (**Erosion**)
3. It is the process of breaking down rocks into small pieces. (**Weathering**)
4. It is the process of breaking down rocks into pieces without any change in their structure. (**Mechanical weathering**)
5. It is the process of breaking down rocks pieces with a change in their structure. (**Chemical weathering**)
6. It is a type of weathering that is caused by the melting and freezing of water inside the rocks. (**Mechanical weathering**)
7. The process that occurs when sand or rocks are moved from one place to another. (**Erosion**)
8. The pieces of weathered rock that moved from its place. (**Sediments**)
9. The process that happens after erosion and causes the formation of delta. (**Deposition**)







#### 4 Give reasons for:

1. Sea waves cause beach erosion.

**Because waves transport small rocks and sand from one place to another.**

2. Weathering and erosion change the shape of Earth's surface.

**Because rocks are broken down into small particles by the weathering process, and then these small rocks move from one place to another by the erosion process.**

3. Weather factors change the Earth's surface.

**Because weather factors, such as temperature, wind, and rain, cause the weathering and erosion of rocks, so they cause changes to the Earth's surface.** سلسلة كتب الأستاذ

4. Some rocks appear red.

**Because the oxygen in air reacts with the iron in rocks, forming red-colored rust.**

5. Oxygen causes chemical weathering.

**Because oxygen reacts with iron, forming red-colored rust.**

6. Lichens cause chemical weathering.

**Because they produce acids as they grow on rocks, which dissolve the minerals found in rocks, so they change the structure of rocks.**

7. Weathering and erosion change landforms.

**Because rocks are broken down into small pieces by weathering process then they are transported from place to another by erosion process.**

8. Deposition process is a very important.

**Because deposition is the process of laying sediments down in new place causing formation of new landforms.**

#### 5 What happens when:

1. Rocks are broken into smaller pieces?

**Water and wind will transport the small pieces of rocks from one place to another.**







**2. Waves crash the beach?**

**The waves cause beach erosion as they transport small rocks and sand from one place to another.**

**3. Acid rains fall on the rocks?**

**Acid rains dissolve the minerals in rocks, so the rocks become weaker and break down easily.**

**4. Water finds its way into the rock cracks?**

**When the temperature gets very cold, water freezes, forming ice, which expands and makes the cracks become wider, breaking the rocks down.**

**5. Oxygen reacts with the iron in rocks?**

**Red-colored rust is formed, so the rocks become weaker and break down easily.**

**6. Rocks are broken down into small pieces.**

**These sediments move from one place to another by erosion, and then these sediments lay down in another place by deposition.**

**7. The waves crash the beach.**

**It causes beach erosion because water waves can move sand grains from one place to another.**

**6 Answer the following questions:**

**1. Determine the two factors that affect the Earth's surface.**

**Water and wind**

**2. Determine the difference between weathering and erosion.**

Weathering	Erosion
It is the process of breaking down of rocks into small particles.	It is the process of moving small rocks from one place to another by wind, water, or gravity.

**3. Show how the Earth's surface changes by time.**

**The Earth's surface is always changing through three main processes, which are:**

**Weathering, erosion and deposition, which occur by many factors, such as water, wind, and weather.**







4. How are chemical weathering and mechanical weathering similar?

**Both of them break down rocks into smaller pieces.**

5. Mention one different between chemical and mechanical weathering.

**Mechanical weathering doesn't change the structure of rocks.**

**Chemical weathering changes the structure of rocks.**

6. Mention the difference between erosion and deposition and rearrange the two processes.

**Erosion is the process of moving the sediments from one place to another.**

**Deposition is the process of laying sediments down after they are eroded.**

7. Mention the difference between weathering and deposition and which of them occur first?

**Weathering is the process of breaking down rocks into smaller particles (sediments)**

**Deposition is the process of laying sediments down after they are eroded.**

**Weathering occurs first.**

8. Mention one different between the formation of dunes and formation of delta.

**Sand dunes formed by deposition by wind.**

**Delta formed after deposition by water.**





# Pony Revision on Concept 4.2

## Changing Landscapes

Weeks  
11 - 12 - 13

### 1 Put (✓) or (X):

1. The Small Canyon is located in Thailand. (✓)
2. Canyons are similar to each other. (X)
3. Canyons form as a result of the weathering process only. (X)
4. Plants on both sides of canyons indicate the presence of water. (✓)
5. The sides of canyons are flat. (X)
6. Canyons are formed in a few years. (X)
7. The Colored Canyon is found in Sinai. (✓)
8. A canyon is formed due to weathering and deposition. (X)
9. The more water flows, the greater the erosion. (✓)
10. There are layers in some canyons. (✓)
11. Fast-moving rivers can cause a lot of erosion. (✓)
12. As rivers drain, they create a variety of different landforms. (✓)
13. The Grand Canyon is a landform in South America. (X)
14. The Grand Canyon is the largest canyon in the world. (✓)
15. Gravity pulls rainwater downhill. (✓)
16. A canyon is a type of valley. (✓)
17. The greater the water flow, the greater the weathering. (✓)
18. Larger streams or rivers produce greater changes. (✓)
19. Rivers can change a landform very slowly. (✓)

### 2 Complete the following sentences:

1. Water and wind are factors that cause weathering, erosion, and deposition.
2. A canyon is formed by the weathering and erosion processes.
3. A canyon is formed in millions of years.
4. The Colored Canyon is found in Sinai.
5. Canyons differ in color and shape.
6. The sides of canyons are steep.
7. Plants on both sides of canyons indicate the presence of water.
8. Wadi Nakhr is found in Oman.







9. A canyon may be formed by weathering and erosion with the effect of water and wind.
10. Examples of canyons are Wadi Nakhr and Wadi Rum.
11. The side of a canyon is steep.
12. Erosion and deposition can lead to the formation of some new landforms.
13. The greater the water flow, the greater the erosion.
14. A canyon is a type of valley.
15. The shape of a valley is formed depending on several factors, such as river size and river speed.
16. Fast-moving rivers can cause a lot of erosion.
17. The Grand Canyon is a landform in the United States of America.
18. Gravity pulls rain water downhill.
19. Larger streams or rivers produce greater changes.

### 3 Write the scientific term:

1. It is the canyon that is located in Jordan. (Wadi Rum)
2. It is the canyon that is located in Sinai. (Colored Canyon)
3. It is the canyon that is located in Thailand. (Small Canyon)
4. It is a type of valley with steep sides. (Canyon)
5. It is a lowland area between mountains. (Valley)
6. They are landforms that form by the processes of erosion and deposition. (Sand dunes)

### 4 Give reasons for:

1. There are plants at the sides of a small canyon.  
**Due to the presence of water that formed this small canyon.**
2. Canyons have sloped sides.  
**Due to the effect of weathering and erosion by water.**
3. Rivers can change the landform.  
**Because fast-moving rivers can break down rocks and carry sediments away, forming new landforms, such as valleys or canyons.**







4. Rainwater falls downhill to form small streams.

**Due to the effect of gravity.**

5. A canyon does not form quickly.

**Because it forms by the weathering and erosion by water, which takes a very long time.**

6. Gravity has an important role in the formation of canyons.

**Because gravity pulls rainwater downhill, forming streams and rivers, which erode rocks, forming canyons.**

## 5 What happens when:

1. Rivers drain?

**Flowing water causes the weathering and erosion of rocks, causing the formation of valleys and canyons.**

2. The water flow is greater?

**The greater the weathering and erosion of rocks occurs.**

3. The water is traveling down a steep slope?

**The water flows fast and erodes more sediments.**

## 6 Answer the following questions:

1. Explain why it might be useful to recognize signs of weathering, erosion, and deposition.

**Because it helps us build houses in safe places.**

2. What are the similarities between canyons and valleys?

**Both of them are formed by the effect of the weathering and erosion processes by water.**

**Both of them often have rivers or streams flowing through their bottoms.**

3. What are the differences between canyons and valleys?

**Valleys are lowland areas between mountains and their sides are gently sloped.**

**Canyons are deep valleys with steep sides; their walls are narrow and vertical.**





حمل الآن

مجاناً وحصرياً

# المراجعة رقم (3)

## الترم الثاني







# Final Revision

**Mr. Ahmed Elbasha**

✱ **(1) Write the scientific term :**

- 1) They are lowland areas which have gentle sloped sides. (.....)
- 2) A mill that is turned by wind flow. (.....)
- 3) It is any substance which produces thermal energy on burning. (.....)
- 4) The main source of energy on the Earth surface. (.....)
- 5) A device is used to convert electrical energy into light energy. (.....)
- 6) It is a type of electrical energy generated by turbines in dams. (.....)
- 7) The energy cannot be created or destroyed. (.....)
- 8) The process of breaking rocks into small particles. (.....)
- 9) The Process of laying sediments down in new place after erosion (.....)
- 10) The energy sources that take a very long period of time to be renewed (.....)
- 11) Deep valleys carved by flowing water (.....)
- 12) Fuel made from living organisms that can be planted. (.....)
- 13) The landform that is formed by erosion and deposition of sand in a sandy desert environment (.....)
- 14) The process that occurs when sand, soil, or rocks are moved from one place to another. (.....)
- 15) They are tiny plant-like organisms that live on rocks and produce acid on them. (.....)
- 16) A canyon that has a V-shaped in Egypt. (.....)
- 17) The energy used to play a drum. (.....)
- 18) It is a form of fossil fuel that was formed from dead marine animals. (.....)



**\*(2) Choose the right answer:**

- |   |              |             |           |
|---|--------------|-------------|-----------|
| <b>1. The wasted energy that produced from the electric lamp is .....</b> |              |             |           |
| a. potential.   | b. chemical. | c. thermal. | d. light. |
- |  |                      |  |  |
|--|----------------------|--|--|
| <b>2. Which of the following energy forms isn't produced from the Sun?</b> |                      |  |  |
| a. Thermal energy.   | b. Light energy.     |  |  |
| c. Kinetic energy.   | d. Radiation energy. |  |  |
- |   |                         |  |  |
|---|-------------------------|--|--|
| <b>3. Rusting of iron in rocks is an example of .....</b> |                         |  |  |
| a. mechanical weathering.                                 | b. weathering by wind.  |  |  |
| c. deposition in rivers.                                  | d. chemical weathering. |  |  |
- |  |                |          |              |
|--|----------------|----------|--------------|
| <b>4. All the following are examples of renewable energy resources, except .....</b> |                |          |              |
| a. fossil fuel.  | b. waterfalls. | c. wind. | d. sunlight. |
- |   |              |            |            |
|---|--------------|------------|------------|
| <b>5. The input energy when using the hair dryer is the ..... energy.</b> |              |            |            |
| a. electrical   | b. potential | c. kinetic | d. heating |
- |  |              |           |         |
|--|--------------|-----------|---------|
| <b>6. .... causes mechanical weathering.</b> |              |           |         |
| a. Oxygen                                    | b. Acid rain | c. Lichen | d. Wind |
- |   |             |            |             |
|---|-------------|------------|-------------|
| <b>7. .... is the main source of energy on the Earth's surface.</b> |             |            |             |
| a. Oil  | b. Gasoline | c. The Sun | d. The moon |
- |  |          |          |            |
|--|----------|----------|------------|
| <b>8. .... may cause chemical weathering or mechanical weathering.</b> |          |          |            |
| a. Oxygen  | b. Water | c. Rocks | d. Lichens |
- |   |                 |          |             |
|---|-----------------|----------|-------------|
| <b>9. Extreme heat and pressure under the Earth's surface have an important role in forming .....</b> |                 |          |             |
| a. wood.  | b. fossil fuel. | c. wind. | d. biofuel. |
- |  |            |               |            |
|--|------------|---------------|------------|
| <b>10..... is the process that occurs when sediments move from one place to another.</b> |            |               |            |
| a. Weathering  | b. Erosion | c. Deposition | d. Weather |
- |  |                 |             |              |
|--|-----------------|-------------|--------------|
| <b>11.Curiosity rover is designed to explore .....</b> |                 |             |              |
| a. Earth planet.                                       | b. Mars planet. | c. the Sun. | d. the moon. |
- |  |            |          |           |
|--|------------|----------|-----------|
| <b>12.Electric wires are made of .....</b> |            |          |           |
| a. copper.                                 | b. carbon. | c. wood. | d. glass. |
- |   |          |           |             |
|---|----------|-----------|-------------|
| <b>13.Sand is formed due to breaking down of.....</b> |          |           |             |
| a. glass.   | b. wood. | c. rocks. | d. plastic. |
- |  |             |           |              |
|--|-------------|-----------|--------------|
| <b>14.Canyons are considered a type of .....</b> |             |           |              |
| a. mountains.                                    | b. valleys. | c. hills. | d. plateaus. |
- |   |                      |  |  |
|---|----------------------|--|--|
| <b>15.Old windmills are used in .....</b> |                      |  |  |
| a. generating electricity.                | b. obtaining energy. |  |  |
| c. cooking food.                          | d. crushing grains.  |  |  |
- |   |                    |  |  |
|---|--------------------|--|--|
| <b>16.Breaking down the rocks by weather factors is .....</b> |                    |  |  |
| a. precipitation.   | b. transportation. |  |  |
| c. weathering.  | d. erosion.        |  |  |



**17. Batteries store ..... energy inside them.**

- a. electrical                      b. chemical                      c. solar                      d. kinetic

**18. Steep valleys formed due to flowing water erosion are called .....**

- a. deltas.                      b. sand dunes.                      c. canyons.                      d. hills.

**19. .... is the process in which sediments are carried to another places.**

- a. Deposition                      b. Erosion                      c. Weathering                      d. Melting

**20. .... is considered a type of biofuels.**

- a. Wood                      b. Wind                      c. Oil                      d. Coal

**21. The wasted energy resulting from the light bulb is ..... energy.**

- a. electrical                      b. chemical                      c. thermal                      d. sound

**22. A ..... is formed when a river stream enters the sea.**

- a. canyon                      b. sand dune                      c. delta                      d. mountain

**23. All the following are forms of fossil fuel, except .....**

- a. natural gas.                      b. coal.                      c. oil.                      d. charcoal.

**24. .... is formed when carbon dioxide gas combines with rainwater.**

- a. Rust                      b. Acid rain                      c. Global warming                      d. Rainbow

**25. In the battery of a toy car, ..... energy is converted into electrical energy.**

- a. sound                      b. chemical                      c. light                      d. thermal

**26. Crashing a piece of biscuit by hand is similar to ..... of rocks.**

- a. mechanical weathering                      b. chemical weathering  
c. erosion                      d. deposition

**27. .... canyon is considered as largest canyon in the world.**

- a. Colored                      b. Grand                      c. Smallest

**28. Delta is formed due to ..... process.**

- a. weathering                      b. erosion                      c. deposition

**29. .... are used in converting light energy to electrical energy.**

- a. Wind turbines                      b. Water turbines  
c. Solar panels                      d. Windmills

**30. .... is a renewable source of energy.**

- a. Coal                      b. Natural gas                      c. Water                      d. Fossil fuel

**31. A canyon may take of ..... years to be formed .**

- a. millions                      b. tens                      c. hundreds                      d. couple

**32. The formation of dunes in Eastern Desert in Egypt is due to the movement of .....**

- a. floods.                      b. winds.                      c. waves.                      d. water.

**33. All the following can change Earth surface, except .....**

- a. weathering.                      b. deposition.                      c. erosion.                      d. digestion.



**34. While playing guitar, the kinetic energy is changed into .....**

- a. electrical.                      b. potential.                      c. sound.                      d. thermal.

**35. Sand is formed due to breaking down of .....**

- a. wood.                      b. glass.                      c. plastic.                      d. rocks.

**36. The energy produced by radio which helps it to do its main job is ..... energy**

- a. electrical                      b. sound                      c. light                      d. chemical

**37. When flowing river which carrying clay and sand sediments meets the sea water, ..... is formed.**

- a. delta                      b. sand dune                      c. dam                      d. canyon

**38. The energy stored in battery is ..... energy.**

- a. kinetic                      b. light                      c. sound                      d. chemical

**39. The main source of energy on Earth is .....**

- a. gasoline                      b. Sun                      c. moon                      d. coal

**40. .... is non-renewable source of energy.**

- a. Waterfalls                      b. Coal                      c. Sun                      d. Wind

**41. The energy source in the toy car is the .....**

- a. engine                      b. tires                      c. battery                      d. fuel

**42. Coal was formed under the Earth's surface from the remains of .....**

- a. dead animals                      b. dead plants  
c. dead humans                      d. dead insects

**43. When you eat an apple, your body converts the ..... energy stored in the apple into ..... energy when you move.**

- a. chemical - electrical                      b. kinetic - chemical  
c. electrical - chemical                      d. chemical - kinetic

**44. Steep valleys formed due to flowing water erosion are called .....**

- a. deltas                      b. sand dunes                      c. canyons                      d. hills

**45. The reason for flowing of river water downhill is the ..... force.**

- a. pushing                      b. friction                      c. gravitational                      d. electrical

**46. We must ..... fossil fuel first, to obtain energy.**

- a. wash                      b. cook                      c. cool                      d. burn

**47. When you use hand bell, the ..... energy is converted into sound energy.**

- a. light                      b. thermal                      c. kinetic                      d. electric

**48. The process in which rocks are broken down to form sediments is.....**

- a. erosion                      b. weathering                      c. digestion                      d. deposition

**49. The input energy in the fridge is ..... energy.**

- a. electrical                      b. sound                      c. chemical                      d. thermal

**50. Deltas are formed when the river entering all the following, except .....**

- a. lakes                      b. seas                      c. mountains                      d. oceans



- 51. All of the following are renewable sources of energy, except .....**  
a. wind                      b. solar energy                      c. water                      d. fossil fuel
- 52. When the river lays the sediments in a new place, this process is called .....**  
a. erosion                      b. deposition                      c. weathering                      d. melting
- 53. All the following are forms of fossil fuels, except .....**  
a. water                      b. coal                      c. natural gas                      d. oil
- 54. Moving of sediments from a place to another represents the ..... process.**  
a. weathering                      b. deposition  
c. erosion                      d. photosynthesis
- 55. Some kinetic energy is converted into ..... energy due to the friction of the bike's tire with the road.**  
a. light                      b. electrical                      c. potential                      d. thermal
- 56. As energy transforms from one form to another, some of it is often lost as .....**  
a. light                      b. heat                      c. sound                      d. movement
- 57. All the following are found deeply under the Earth's surface, except .....**  
a. natural gas                      b. coal                      c. green plants                      d. oil
- 58. The ..... weathering is a change in the structure of rocks.**  
a. physical                      b. chemical                      c. mechanical                      d. electrical
- 59. All the following are forms of fossil fuel, except .....**  
a. oil                      b. coal                      c. wood                      d. natural gas
- 60. The output energy when playing a guitar is ..... energy.**  
a. chemical                      b. sound                      c. potential                      d. light
- 61. The iron makes up rock minerals rusts when it is exposed to a ..... process.**  
a. chemical weathering                      b. mechanical weathering  
c. erosion                      d. deposition
- 62. Some tiny organisms (lichens) produce ..... on rocks that dissolve minerals found in these rocks.**  
a. oxygen                      b. acids                      c. water                      d. rain
- 63. Ancient People used ..... as a form of fuel before discovering gasoline.**  
a. wind                      b. wood                      c. oil                      d. coal
- 64. All the following factors affect the shape of the valley, except .....**  
a. the river's size                      b. the river's speed  
c. the rocks' type                      d. the rocks' color
- 65. Modern turbines are ..... than old windmills.**  
a. taller                      b. shorter                      c. heavier                      d. slower
- 66. The Curiosity Mars rover operated with ..... energy.**  
a. sound                      b. solar                      c. kinetic                      d. thermal



**67.A ..... is formed when flowing river water meets sea water.**

- a. dam                                      b. delta                                      c. canyon                                      d. sand dune

**68.The process of breaking rocks by acids is called .....**

- a. erosion                                      b. chemical weathering  
c. mechanical weathering                                      d. deposition

**69.Which of the following can be used to produce liquid fuel .....**

- a. wind                                      b. rocks                                      c. corn                                      d. coal

**70.The colored canyon is found in .....**

- a. Jordon                                      b. Sinai                                      c. Oman

**71.When coal is burned, ..... energy is produced.**

- a. Kinetic                                      b. thermal                                      c. potential

**72.As a result of breaking down of rocks, ..... is formed:**

- a. sand                                      b. glass                                      c. plastic

**73..... is considered as a renewable resource of energy.**

- a. Natural gas                                      b. Petroleum                                      c. Wind

**\* (3) Put ( √ ) or ( X ) :**

- |  |       |
|--|-------|
| 1. Coal was formed from the sea animals remains.                                   | (   ) |
| 2. Erosion is the process in which the small particles are moved to other places.  | (   ) |
| 3. Canyons are similar in their colors, texture and shapes.                        | (   ) |
| 4. The watermills convert electrical energy into kinetic energy.                   | (   ) |
| 5. Most energy chains start with the moon.   | (   ) |
| 6. Chemical energy is the energy that stored in food and battery.                  | (   ) |
| 7. Canyons are special types of valleys that have steep sides.                     | (   ) |
| 8. Generator changes the kinetic energy into electrical energy.                    | (   ) |
| 9. Biofuel is one of nonrenewable resources of energy.                             | (   ) |
| 10. Delta is formed by the effect of the weathering process only.                  | (   ) |
| 11. Deposition process never change the shape of the land.                         | (   ) |
| 12. There is a stored chemical energy inside the food we eat.                      | (   ) |
| 13. Both sandcastles and canyons can be formed in few hours.                       | (   ) |
| 14. Output energy in solar panel is light energy.                                  | (   ) |
| 15. Carbon dioxide gas combines with water in the air to form global warming.      | (   ) |
| 16. Strong wind can form large sand dunes.   | (   ) |
| 17. Oil is formed from the remains of decomposing marine organisms.                | (   ) |
| 18. Some energy is wasted when it is transformed from one form to another.         | (   ) |
| 19. Solar cells convert electrical energy into radiant energy.                     | (   ) |
| 20. Both weathering and erosion can occur by wind.                                 | (   ) |
| 21. Sand dunes are formed by deposition process only.                              | (   ) |
| 22. Changing the color of an iron statue into red is due to a chemical weathering. | (   ) |
| 23. A solar water heater contains solar panels.                                    | (   ) |
| 24. Wind turbines convert the kinetic energy of water into electrical energy.      | (   ) |
| 25. Sand travels for a short distance when wind blows with a great force.          | (   ) |
| 26. Deltas are formed when the speed river water increases.                        | (   ) |
| 27. Solar water heater is formed of panels made of black pipes.                    | (   ) |



- |  |        |
|--|--------|
| 28. Electrical energy can be generated from both waterfalls and wind movement. | (    ) |
| 29. As a result of global warming, the temperature on the Earth increases.     | (    ) |
| 30. Both wind movement and water flow have kinetic energy.                     | (    ) |
| 31. Deposition process never change the shape of the land.                     | (    ) |
| 32. Wind can be considered one of the factors that cause weathering.           | (    ) |
| 33. Erosion is breaking down rocks into small pieces.                          | (    ) |
| 34. Light bulbs change electric energy to light energy.                        | (    ) |
| 35. Wind turbines generate electricity.  | (    ) |
| 36. Oxygen in air reacts with iron in rocks, forming green rust.               | (    ) |
| 37. Curiosity Rover designed to explore the surface of Mars.                   | (    ) |
| 38. The surface of the earth changes from time to time.                        | (    ) |
| 39. When water freezes, its volume increases.                                  | (    ) |
| 40. Carbon dioxide gas combines with water in the air to form global warming.  | (    ) |
| 41. Strong wind can form large sand dunes.                                     | (    ) |
| 42. All canyons are similar in shape of rocks and colors.                      | (    ) |
| 43. Wind and water are considered as nonrenewable energy resources.            | (    ) |
| 44. Coal can be used to produce electrical energy.                             | (    ) |
| 45. Sea waves may cause erosion of beaches.                                    | (    ) |
| 46. The Mars Rover curiosity converts Sun energy into kinetic energy.          | (    ) |
| 47. We should turn off lights that you do not need.                            | (    ) |
| 48. Energy can't be changed to another form.                                   | (    ) |
| 49. Burning of fossil fuel produce thermal energy.                             | (    ) |
| 50. Nile river delta has a rectangular shape.                                  | (    ) |
| 51. Water can play an important role in weathering and erosion                 | (    ) |
| 52. Grand Canyon took millions of years to be formed.                          | (    ) |
| 53. Wind energy is a non-renewable source of energy.                           | (    ) |
| 54. Water mills are used in generating electricity.                            | (    ) |
| 55. Both canyons and valleys often have rivers or streams that flow through.   | (    ) |

Science	Second Term 2024/2025	Grade 4
56. All the types of mechanical weathering lead to breaking down rocks.	(    )	
57. Charcoal is a type of biofuel.	(    )	
58. Global warming is one of the bad effects of using fossil fuels.	(    )	
59. Water turbines rotate when their blades rotate as wind blows.	(    )	
60. Limestone caves are formed as a result of chemical weathering.	(    )	
61. Biofuel is one of non-renewable resources of energy.	(    )	
62. The Sun is the primary source of forming both biofuel and fossil fuel.	(    )	
63. Oxygen can rust rocks.	(    )	
64. The wind or water deposit the sediments.	(    )	
65. Sound energy produced from a hair dryer helps it to do its main function.	(    )	
66. Canyons can take one day to be formed.	(    )	
67. As a result of global warming, the temperature on the Earth increases.	(    )	
68. Both wind movement and water flow have kinetic energy.	(    )	
69. The deposition process never changes the shape of the land.	(    )	
70. Wind can be considered one of the factors that cause weathering.	(    )	
71. Acid rain causes global warming.	(    )	
72. Dune is a hill of sand created by the wind.	(    )	
73. Curiosity robot needs sound energy to be operated.	(    )	
74. Deposition is the laying of sediments at the bottom.	(    )	
75. One of the output energies in the piano is chemical energy.	(    )	
76. Water is a renewable energy resource.	(    )	
77. Canyons are a special type of valley.	(    )	



**\* (4) Complete the following sentences using the given words:****1.****(delta – charcoal – electricity – Rocks – Biofuel)**

1. .... is a type of biofuel which is made of wood.
2. Wind turbines are used to generate .....
3. Sand is formed due to breaking down of .....
4. .... includes grass, charcoal and liquid fuel.
5. When a river meets a sea or an ocean, a landform known as ..... is formed.

**2.****(Grand Canyon - Acid rain - Fuel - Mars rover - Light)**

1. .... explores Mars planet.
2. .... is a substance that produces thermal energy when it is burned.
3. .... is a very large canyon on Earth.
4. The lamp changes the electrical energy to ..... energy.
5. The ..... dissolves minerals found in rocks.

**3.****(Increases- biofuel – Warm – coal)**

1. Fossil fuel includes oil ..... and natural gas.
2. When we expose our bodies to the Sun, we feel .....
3. Wood and grass are examples of .....
4. When water freezes, it expands and its volume .....

**4.****(Thermal - electrical - battery - Hydroelectric energy - biofuel)**

1. Different forms of fuel can be classified into two main types ..... and fossil fuels.
2. The type of electrical energy which is produced by water turbines is called .....
3. Water flows through turbines in dams to generate ..... energy.
4. Electrical water kettle produces ..... energy.
5. The energy source in the toy car is a .....

**\*(5) Complete the following sentences:**

1. Wood and ..... are examples of biofuel.
2. Dams are built on rivers to generate ..... energy.
3. The electric fan converts electrical energy into ..... energy.
4. Global warming causes the raise of ..... on Earth.
5. Sand is formed due to breaking down of .....
6. Each energy chain starts with the .....
7. Rusting of iron is an example for ..... weathering.
8. In any energy chain, some of energy is wasted in the form of .....
9. .... is fuel produced from living organisms that can be planted.
10. .... produced by lichens may dissolve rocks.
11. Deltas are formed when the speed of river water .....
12. .... is the source of energy of remote controlled toys.
13. The process in which the particles of sand, soil and rocks are moved to another place is called .....
14. .... is a type of valleys which slopes at sides.
15. The electrical energy can flow through ..... to houses and companies.
16. To operate an electric mixer, we use ..... energy.
17. Wood is considered as a .....
18. When the sides of a valley become steep, this valley may be changed into a .....
19. .... and ..... are from renewable sources of energy.
20. In electric power stations, ..... is burned to generate ..... energy.
21. Sand dunes are formed by ..... and ..... processes.
22. .... and ..... are types of weathering.
23. Canyons have ..... sides, and eroded by water.
24. Input energy of toy cars is ..... energy stored in battery.
25. Deltas are formed by ..... process.
26. Wind turbines convert kinetic energy into..... energy.



✱(6) **Correct the underlined word :**

1	<u>Carbon dioxide</u> gas in the air reacts with the iron of some rocks forming iron rust.	( ..... )
2	The amount of <u>biofuel</u> cannot be replaced as quickly as it used.	( ..... )
3	Generator in electric power station is used in generating <u>thermal</u> energy.	( ..... )
4	Smog of cars causes the damage of digestive <u>system</u> .	( ..... )
5	<u>Delta</u> is formed due to the movement of wind that is carrying the sand.	( ..... )
6	Deltas are formed by <u>weathering</u> process.	( ..... )
7	<u>Dunes</u> are lowland areas which have gently sloped sides.	( ..... )
8	The output energy in electric heater is <u>sound</u> energy.	( ..... )
9	Growing roots inside a rock, causes <u>chemical</u> weathering.	( ..... )
10	Curiosity is a robotic vehicle that is designed to explore the surface of the <u>moon</u> .	( ..... )
11	Hydroelectric energy, is one of the <u>non-renewable</u> energy resources.	( ..... )

**\*(7) Give reason for:**

1. We must conserve the fossil fuel.

.....

2. Wood is considered as a fuel.

.....

3. Coal is considered as a nonrenewable energy resource.

.....

4. Biofuel is considered a renewable fuel.

.....

5. Generators are used in electric power stations.

.....

6. Formation of small sand dunes on a beach.

.....

7. Petroleum oil is nonrenewable source of energy.

.....

8. Iron inside rocks may rust.

.....

9. We must turn off lights that are not needed for a while.

.....

10. Disappearing of the sandcastles on the beaches.

.....

11. The toy car has a battery.

.....

12. Sound energy is considered wasted energy in blenders.

.....

13. The electric generator has an important role in the electric power station.

.....

14. Plants of wetland help in formation of deltas.

.....



**✳(8) What happen if ....?**

1. Acid rains fall on rocks.

.....

2. River erodes the rock of mountain over millions of years.

.....

3. The amount of carbon dioxide gas increases in the atmosphere.

.....

4. Wind doesn't blow in an area that contains wind turbines.

.....

5. Sunlight falls on the solar panels of Mars rover Curiosity vehicle.

.....

6. A small canyon, if it rained a lot and water ran through it for longer time.

.....

7. Sea creatures were buried under the Earth's surface over millions of years.

.....

8. The charge of batteries of remote controlled toy car is running out.

.....

9. The temperature decreases causing water freezing in rocks cracks.

.....

10.You put your hand near the lighted lamp.

.....

11.A flat land if a water stream flows over it?

.....

12.A small canyon, if it rained a lot and water ran through it for a longer time.

.....

13.A river erodes the sediments of a mountain over a long Period of time?

.....

14.A red-colored rust is formed on some rocks?

.....

15.Oxygen reacts with the iron that makes up rocks?

.....

**\*(9) Choose from column (B) what suits it in column (A):**

**1.**

A	B
1. Water	a. generate electricity by using solar energy.
2. Law of conservation of energy	b. energy doesn't destroy, nor create from nothing.
3. Canyon	c. is steep landform and formed due to power of flowing water erosion.
4. Solar panels	d. is renewable resource of energy.

1. ....

2. ....

3. ....

4. ....

**2.**

A	B
1. Coal	a. laying sediments in the bottom.
2. Deposition	b. generate electric energy.
3. Sound energy	c. from biofuel, made from wood.
4. Charcoal	d. is a type of fossil fuels.
5. Wind turbines	e. is a wasted energy of hair dryer.

1. ....

2. ....

3. ....

4. ....

5. ....

**3.**

A	B
1. Gravity	a. produce thermal energy.
2. Generators	b. pulls rocks down mountain.
3. Canyons	c. produce electrical energy.
4. Fuel	d. are deep valleys carved by flowing water.

1. ....

2. ....

3. ....

4. ....

**4.**

A	B
1. Rover curiosity	a. it is a triangle shaped mass of sediments and mud.
2. Global warming	b. is the movement of small rocks and sand from a place to another.
3. Delta	c. is designed to explore the surface of Mars.
4. Erosion	d. due to increasing the amount of carbon dioxide in air.

1. ....

2. ....

3. ....

4. ....



## ✱(10) Problems :

### 1. Classify the following factors that cause weathering in the table below:

1. Wind.                      2. Acids.                      3. Oxygen gas.                      4. Temperature.

Factors cause mechanical weathering	Factors cause chemical weathering
.....	.....
.....	.....

### 2. Give two examples for fossil fuels :

1.  
2.

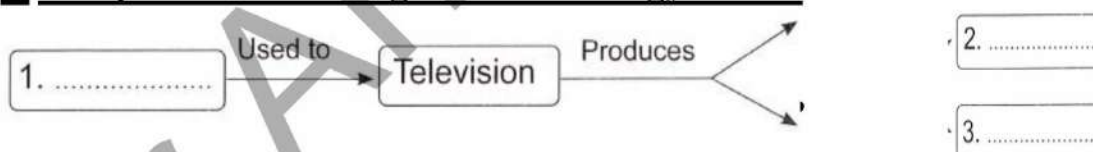
### 3. Classify the following to mechanical weathering or chemical weathering :

1. Oxygen reacts with iron of rocks which weaken rocks. ( ..... )  
2. Plant roots grow inside the cracks of rocks.

### 4. Name two examples of renewable energy sources.

1.  
2.

### 5. Complete the following television energy chain :



### 6. Cross out the odd word :

1. Coal - Oil - Water - Natural gas. ( ..... )  
2. Mountain - Valley - Gravity - Canyon ( ..... )  
3. Weathering - Deposition - Erosion - Photosynthesis ( ..... )  
4. Food - Battery - Lamp - Coal ( ..... )  
5. Solar heater - Electric heater - Water heater - Drum ( ..... )

# Model Answer

## \*(1) Write the scientific term :

- |                  |                                      |                            |                     |
|------------------|--------------------------------------|----------------------------|---------------------|
| 1. Valley        | 6. Hydroelectric energy              | 10. Nonrenewable resources | 14. Erosion         |
| 2. Windmill      | 7. The law of conservation of energy | 11. Canyon                 | 15. Lichens         |
| 3. Fuel          | 8. Weathering                        | 12. Biofuels               | 16. Colored canyons |
| 4. Sun           | 9. Deposition                        | 13. Sand dunes             | 17. Kinetic energy  |
| 5. Electric bulb |                                      |                            | 18. Oil             |

## \*(2) Choose the right answer:

- |      |       |       |       |       |       |       |       |       |       |       |
|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1. C | 8. B  | 15. D | 22. C | 29. C | 36. B | 43. D | 50. C | 57. C | 64. D | 71. B |
| 2. C | 9. B  | 16. C | 23. D | 30. C | 37. A | 44. C | 51. D | 58. B | 65. A | 72. A |
| 3. D | 10. B | 17. B | 24. B | 31. A | 38. D | 45. C | 52. B | 59. C | 66. B | 73. C |
| 4. A | 11. B | 18. C | 25. B | 32. B | 39. B | 46. D | 53. A | 60. B | 67. B |       |
| 5. A | 12. A | 19. B | 26. A | 33. D | 40. B | 47. C | 54. C | 61. A | 68. B |       |
| 6. D | 13. C | 20. A | 27. B | 34. C | 41. C | 48. B | 55. D | 62. B | 69. C |       |
| 7. C | 14. B | 21. C | 28. C | 35. D | 42. B | 49. A | 56. B | 63. B | 70. B |       |

## \*(3) Put (✓) or (X) :

- |        |         |         |         |         |         |         |         |         |
|--------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1. (X) | 10. (X) | 19. (X) | 28. (✓) | 37. (✓) | 46. (X) | 55. (✓) | 64. (✓) | 73. (X) |
| 2. (✓) | 11. (X) | 20. (✓) | 29. (✓) | 38. (✓) | 47. (✓) | 56. (✓) | 65. (X) | 74. (✓) |
| 3. (X) | 12. (✓) | 21. (X) | 30. (✓) | 39. (✓) | 48. (X) | 57. (✓) | 66. (X) | 75. (X) |
| 4. (X) | 13. (X) | 22. (✓) | 31. (X) | 40. (X) | 49. (✓) | 58. (✓) | 67. (✓) | 76. (✓) |
| 5. (X) | 14. (X) | 23. (✓) | 32. (✓) | 41. (✓) | 50. (✓) | 59. (X) | 68. (✓) | 77. (✓) |
| 6. (✓) | 15. (X) | 24. (X) | 33. (X) | 42. (X) | 51. (✓) | 60. (✓) | 69. (X) |         |
| 7. (✓) | 16. (✓) | 25. (X) | 34. (✓) | 43. (X) | 52. (✓) | 61. (X) | 70. (✓) |         |
| 8. (✓) | 17. (✓) | 26. (X) | 35. (✓) | 44. (✓) | 53. (X) | 62. (✓) | 71. (X) |         |
| 9. (X) | 18. (✓) | 27. (✓) | 36. (X) | 45. (✓) | 54. (X) | 63. (✓) | 72. (✓) |         |

## \*(4) Complete the following sentences using the given words:

1	1. Charcoal 2. Electricity 3. Rocks 4. Biofuel 5. Delta	2	1. Mars rover 2. Fuel 3. Grand Canyon 4. Light 5. Acid rain
3	1. Coal 2. Warm 3. Biofuel 4. Increases	4	1. Biofuel 2. Hydroelectric energy 3. Electrical 4. Thermal 5. battery

## \*(5) Complete the following sentences:

- |                |              |              |                           |                |
|----------------|--------------|--------------|---------------------------|----------------|
| 1. grass       | 7. chemical  | 13. erosion  | 19. water , wind          | 23. steep      |
| 2. electric    | 8. heat      | 14. canyon   | 20. fuel – electric       | 24. chemical   |
| 3. kinetic     | 9. biofuels  | 15. wires    | 21. erosion – deposition  | 25. deposition |
| 4. temperature | 10. acids    | 16. electric | 22. chemical – mechanical | 26. electric   |
| 5. rocks       | 11. decrease | 17. biofuel  |                           |                |
| 6. sun         | 12. battery  | 18. canyon   |                           |                |

## \*(6) Correct the underlined word :

- |                 |                |               |               |
|-----------------|----------------|---------------|---------------|
| 1. oxygen       | 4. respiration | 7. valleys    | 10. mars      |
| 2. fossil fuels | 5. sand dunes  | 8. thermal    | 11. renewable |
| 3. electric     | 6. deposition  | 9. mechanical |               |

## \*(7) Give reason for:

- Because fossil fuel is formed over millions of years.
- Because when wood burns, it produces thermal energy.
- Because it is used faster than it can be renewed.
- Because it can be replaced soon after it is used.
- Because generators convert kinetic energy into electrical energy.
- Because they are formed by the effect of weak winds.
- Because it is used faster than it can be renewed .
- Due to the reaction between iron and oxygen of air.
- To conserve the electricity.
- As a result of their hitting by the sea waves.
- Because the chemical energy stored in battery is converted into electrical energy that changes into kinetic energy that makes the car move.
- Because they don't help the blender to do its main function.
- Because generators convert kinetic energy into electrical energy.
- Because they help in increasing the rate of deposition process.



**\*(8) What happen if ....?**

1. The minerals of these rocks dissolve causing their breaking down.
2. A canyon may be formed.
3. The temperature of the Earth will increase which is called global warming.
4. The blades of wind turbines don't move and also don't generate electricity.
5. Solar panels convert solar energy into electrical energy which is converted into kinetic and thermal energies.
6. The small canyon could get deeper.
7. Oil and natural gas are formed .
8. The car will not move, so we can recharge its batteries by connecting toy car to a nearby charger or replacing old batteries with new ones.
9. Water will expand and make the cracks of rocks become wider.
10. You feel warm.
11. A small canyon may be formed.
12. The small canyon could get deeper.
13. A canyon may be formed.
14. These rocks become weak and can be break down easily.
15. Iron in rocks may rust.

**\*(9) Choose from column (B) what suits it in column (A) :**

1	1. d	2. b	3. c	4. a	2	1. d	2. a	3. e	4. c	5. b
3	1. b	2. c	3. d	4. a	4	1. c	2. d	3. a	4. b	

**\*(10) Problems :**

1	Factors cause mechanical weathering: wind – temperature Factors cause chemical weathering: Acid – oxygen gas	2	1. coal 2. oil
3	1. chemical 2. mechanical	4	1. water 2. wind
5	1. electric 2. Light 3. sound	6	1. water 2. gravity 3. photosynthesis 4. lamp 5. drum

حمل الآن

مجاناً وحصرياً

# المراجعة رقم (4)

## الترم الثاني





# Final Revision

Complete the following sentences with one of words between brackets:

(1) ( six - chemical - battery - output - Sun - input - kinetic )

- 1- ..... is the main source of energy on earth's surface.
  - 2- Spacecraft needs more than .....months to reach Mars.
  - 3- When you eat an orange your body converts the .....energy stored inside the orange into .....energy when you move.
  - 4- Electrical energy is ..... energy in cellular phone to charge its .....
  - 5- The .....energy in the small watch is kinetic energy.
- 

(2)(electrical - stops - kinetic - chemical- heat - potential )

- 1- Batteries change ..... energy into electric energy.
  - 2- To operate an electric mixer we use ..... energy.
  - 3- When you press on the soap dispenser, you convert the ..... energy stored in its spring into ..... energy that moves the soap upward.
  - 4- In any energy chain, some of the energy is lost in the form of .....
  - 5- When the fuel inside the car runs out, the car .....
- 

(3)(long – turbines – burning – Acid rains – fossil – water )

- 1- We have to heat the .....to produce steam which is used to turn ..... in the electric power station.
- 2- Air pollution is usually caused due to ..... of fossil fuel.
- 3- Global warming is one of the disadvantages of burning ..... fuel.
- 4- The fossil fuel is formed underground from dead plants or animals after a very ..... period of time.
- 5- ..... formed when carbon dioxide combines with water in air.

**(4)(renewable - kinetic – water turbine – generator - windmill )**

- 1- The water flow has ..... energy, which moves the blades of ..... to generate electrical energy.
  - 2- The electricity that is generated by wind turbines is considered as ..... energy resource.
  - 3- When wind Kinetic energy increases, the blades of ..... spin more quickly.
  - 4- A wind turbine is connected to a ..... that converts kinetic energy to electrical energy.
- 

**(5) (Electrical – warms – solar cells – thermal – wires – batteries)**

- 1- Solar panels made of many small ..... that can generate electricity.
  - 2- ..... energy and ..... energy are the two types of energy produced from solar panels.
  - 3- Solar cells that are found in some calculators produce electrical energy that is used to recharge their .....
  - 4- The sun ..... the earth and the wind, causing air movement and wind blowing.
  - 5- Electricity is transferred to cities through huge .....
- 

**(6)(gravitational – kinetic – water – Hydroelectric – wind )**

- 1- When the wind turbines rotate, ..... energy is converted into electrical energy.
- 2- Kinetic energy created by ..... movement is used to rotate the blades of wind turbines.
- 3- Kinetic energy created by ..... movement is used to rotate the blades of water turbines.
- 4- The reason of flowing of river water downhill is the ..... force.



(7)(kinetic – potential – Dams – decrease – Hydroelectric – increase )

- 1- The amount of coal will ..... as the time passes.
- 2- ..... energy is a type of electrical energy generated by water turbines in dams.
- 3- Water of rivers stores great ..... energy, when dam prevent the flow of water.
- 4- When water of river is released, kinetic energy of falling water .....
- 5- ..... control the flow of water in rivers to generate electricity.
- 6- Running water in rivers has ..... energy.

-----  
(8) (mechanical – increases – dissolved minerals – chemical – water)

- 1) The shape of coastal rocks is affected by the forces of ..... and wind.
- 2) When water freezes, it expands. This means that its volume .....
- 3) Limestone caves are formed due to the combination of .....
- 4) Plant roots help in the ..... weathering of rocks.
- 5) Limestone caves are formed by the action of ..... weathering.

-----  
(9) (wind – erosion – water – gravity – shorter)

- 1) Gentle wind may carry sand for ..... distance.
- 2) Movement of sediments from a place to another represent ..... process.
- 3) Pulling down broken weathered rocks at mountainsides occurs by the effect of .....
- 4) Wind, ..... and gravity are natural factors that control erosion process.
- 5) Blowing of strong ..... in the desert may form large sand dunes.

(10) (gravity – increases – water – canyon – gently – erosion – river)

- 1) If the rain falls over a small canyon for several times per year, its depth .....
- 2) Wadi Nakhr in Oman is an example of ..... landform.
- 3) Canyon is formed by the effect of the stream of .....
- 4) The process of carving the rock into different shapes by wind blowing is ..... process.
- 5) Both of canyons and valleys have a ..... flow through their lowest points.
- 6) The sides of the canyon at the beginning of its formation are ..... sloped.
- 7) The rainwater gathers in small streams due to the pulling force of .....

**Choose the correct answer:**

- 1- Energy is very important for most devices to .....  
a) operate      b) do their functions      c) move      d) all the previous
- 2- The energy source in toy car is .....  
a) engine      b) tires      c) battery      d) fuel
- 3- When batteries run out, devices .....  
a) operate      b) move      c) stop      d) do their functions
- 4- When batteries run out, we must .....  
a) charge it      b) change it      c) burn it      d) a and b
- 5- Spacecraft takes several ..... to travel from earth to mars.  
a) minutes      b) days      c) months      d) years
- 6- Curiosity rover is designed to explore .....  
a) Earth planet      b) moon      c) mars planet      d) the sun
- 7- Curiosity is the most famous ..... on mars.  
a) Planet      b) robot      c) rocket      d) spacecraft
- 8- Robots and vehicles are operated by.....  
a) electric chargers      b) long-term batteries  
c) solar panels      d) b and c





9- The electrical energy changes in hair dryer into ..... and ..... energies.

- a) sound – thermal
- b) kinetic – light
- c) thermal – light
- d) light – sound

10- Heat energy is the ..... energy in hair dryer.

- a) input
- b) output
- c) wasted
- d) lost

11- Electrical energy changes inside light bulb into ..... and..... Energies.

- a) sound – thermal
- b) kinetic – light
- c) thermal – light
- d) light – sound

12- When a piece of coal is burnt, ..... energy is produced.

- a) sound
- b) kinetic
- c) thermal
- d) potential

13- The ..... Changes electrical energy into light and sound energies.

- a) TV
- b) cellular phone
- c) radio
- d) a and b

14- Light energy is produced from all the following devices except.....

- a) TV
- b) cellular phone
- c) radio
- d) electric lamp

15- Sound energy is produced from all the following devices except.....

- a) TV
- b) cellular phone
- c) radio
- d) electric iron

16- In hair dryer and electric water kettle, the electrical energy changes into ..... energy.

- a) electrical
- b) kinetic
- c) thermal
- d) potential

17- Due to friction of bikes's tire and road some kinetic energy is converted into ..... energy.

- a) sound
- b) light
- c) thermal
- d) potential

18- Which kind of energy is NOT produced by the sun?

- a) heat energy
- b) light energy
- c) mechanical energy
- d) solar energy

19- Which form of energy is not used or produced when electric lamp is turned?

- a) Electrical
- b) light
- c) sound
- d) thermal

20- When you use the hand bell the ..... energy changes into sound energy.

- a) electrical
- b) light
- c) kinetic
- d) thermal

21- Which sentences shows the energy changes in the flash light in correct order?

- a) Chemical – electrical – light
- b) electrical – chemical – light
- c) light – electrical – chemical
- d) electrical – light – chemical

22- During charging a mobile phone, the ..... energy is converted into ..... energy that is stored in the phone battery.

- a) electrical — chemical
- b) chemical — thermal
- c) electrical — thermal
- d) thermal — chemical



23- During the running of a player the chemical energy inside his body is converted into ..... and ..... energies.

- a) potential – light
- b) kinetic – light
- c) kinetic – thermal
- d) thermal – light

24- The output energy when playing a drums is the ..... energy.

- a) electrical
- b) light
- c) potential
- d) sound

25- You feel warm when you rub your hands because ..... energy transformed into thermal energy.

- a) electrical
- b) light
- c) kinetic
- d) sound

26- The produced ..... energy does not help the blender do its job.

- a) Chemical
- b) sound
- c) light
- d) potential

27- In the washing machine, the ..... energy changes into kinetic and sound energies.

- a) light
- b) electrical
- c) thermal
- d) potential

28- ..... is used in electric power stations to produce electricity.

- a) Water
- b) Coal
- c) Food
- d) Green plants

29- "Energy is saved", this is known as the.....

- a) Law of Conservation of Energy
- b) Law of Attraction Force
- c) First Law of Newton
- d) Second Law of Newton

30- If the ..... energy doesn't go through the television's wire, it will not turn on.

- a) electrical
- b) light
- c) kinetic
- d) sound



- 31- Vehicles on Mars change solar energy into ..... energies to operate their sensors and to move on Mars.  
a) electrical                      b) heat                      c) kinetic                      d) all the previous
- 32- All these devices consume electric energy, except.....  
a) TV                      b) cellular phone                      c) radio                      d) solar cells
- 33- ..... consume electric energy.  
a) Solar cells                      b) Batteries                      c) Solar heaters                      d) Cellular phones
- 34- Electric energy is ..... in the electric heater.  
a) Consumed                      b) produced                      c) wasted                      d) destroyed
- 35- Electric wires are made of .....  
a) copper                      b) wood                      c) glass                      d) paper
- 36- When you use the hand bell, the ..... energy changes into sound energy.  
a) light                      b) thermal                      c) kinetic                      d) electric
- 37- The two main types of fuel are .....  
a) wood and coal                      b) wind and water  
c) the sun and the moon                      d) biofuel and fossil fuel.
- 38- ..... is an example of biofuel.  
a) Petroleum                      b) Natural gas                      c) Coal                      d) corn plant
- 39- Car engine can be operated by .....  
a) coal only                      b) coal and wood  
c) gasoline only                      d) gasoline and natural gas
- 40- All the following are renewable source of energy except.....  
a) Wind                      b) Sun                      c) Biofuel                      d) petroleum
- 41- ..... is (are) from the importance of fuel.  
a) Operating cars                      b) Generating electricity  
c) Warming houses                      d) All the previous
- 42- All the following are found deeply under the earth's surface except.....  
a) Oil                      b) green plants                      c) natural gas                      d) coal
- 43- All the following are used to generate electrical energy, except.....  
a) rain water                      b) waterfalls                      c) natural gas                      d) oil

44- All the following factors play an important role in the formation of fossil fuel, except.....

- a) extreme pressure.
- b) extreme heat.
- c) The moon light.
- d) rocks and sediment

45- The fuel must be ..... at first to move a car.

- a) freezed
- b) burned inside the car engine.
- c) cooled
- d) removed from the fuel tank.

46- Ancient people use ..... as a fuel before discovering gasoline.

- a) water
- b) electricity
- c) wood
- d) wind

47- All the following are forms of fuel, except.....

- a) wood
- b) natural gas
- c) gasoline
- d) glass

48- From the disadvantages of biofuel is (are) .....

- a) cutting trees
- b) removal of forests
- c) air pollution
- d) a and b

49- Coal is formed under the earth's surface from the remains of .....

- a) Dead animals
- b) dead plants
- c) dead humans
- d) dead insects

50- The non-renewable resources of energy take ..... to be formed.

- a) Short period of time
- b) few hours
- c) few minutes
- d) a very long period of time

51- Both coal and charcoal .....

- a) are renewable resources of energy.
- b) are non-renewable resources of energy.
- c) are examples of biofuel.
- d) produce thermal energy on burning.



52- Ethanol is a liquid fuel produced from.....

- a) grass
- b) corn
- c) wood chips
- d) all the previous

53- Some forms of fuel can be used in cooking such as .....

- a) Wood
- b) coal
- c) natural gas
- d) all the previous



- 54- We can use the energy obtained from burning of wood in all of the following situations, except.....
- a) warming houses.
  - b) operating television.
  - c) cooking food.
  - d) boiling water.
- 55- Hydroelectric energy is generated from .....
- a) waterfalls only.
  - b) waterfalls and dams.
  - c) biofuel only.
  - d) biofuel and fossil fuel
- 56- ..... can be used in electric power stations to generate electricity.
- a) Coal
  - b) oil
  - c) natural gas
  - d) all the previous
- 57- The rate of consumption of fossil fuel is ..... the rate of its formation.
- a) more than
  - b) less than
  - c) equal to
  - d) no correct answer
- 58- Which of the following forms of fuels can be manufactured by man?
- a) Oil and natural gas.
  - b) Oil and charcoal.
  - c) Natural gas and ethanol.
  - d) Charcoal and ethanol
- 59- We can use the energy that is produced from..... To produce electricity.
- a) renewable resources only
  - b) non-renewable resources only
  - c) a and b
  - d) no correct answer
- 60- The amount of ..... is limited on Earth.
- a) biofuel
  - b) fossil fuel
  - c) non-renewable energy resources
  - d) b and c
- 61- ..... moves the turbines in electric power stations.
- a) Air
  - b) Steam
  - c) Water
  - d) No correct answer
- 62- Cars smog cause irritation of ..... of humans.
- a) stomach and eyes
  - b) eyes and lungs
  - c) small intestine
  - d) brain
- 63- Burning of fossil fuel produces .....
- a) thermal energy.
  - b) gases that pollute the air and solar energy.
  - c) gases that pollute the air.
  - d) a and c.



64- Among the following resources, we must conserve .....

- a) solar energy and coal.
- b) solar energy and wind energy.
- c) wind energy and oil.
- d) oil and coal.

65- People use machines to .....

- a) make their life easier
- b) save their effort
- c) get tasks done faster
- d) all the previous

66- Both modern wind turbines and water turbines are similar in their .....

- a) shape.
- b) ability to generate electrical energy.
- c) blades number
- d) length

67- The wind movement has ..... energy which moves the windmill's blades.

- a) Kinetic
- b) solar
- c) thermal
- d) potential

68- ..... depends on a renewable source of energy.

- a) Petroleum oven
- b) Gas oven
- c) Solar cell
- d) Flashlight

69- In the absence of sunlight, all the following items will be affected, except..

- a) plants
- b) human
- c) rocks
- d) animals.

70- ..... can turn a turbine to generate electricity.

- a) Wind blowing
- b) water flowing
- c) burning coal
- d) all the previous

71- Which of the following pairs of materials are good natural resources for providing energy?

- a) gravel and oil
- b) trees and carbon dioxide
- c) the ocean and soil
- d) wind and natural gas

72- Using of water to generate electricity depends on places .....

- a) with strong winds.
- b) where dams are built on rivers.
- c) with weak winds.
- d) where boats sail in rivers.

73- Using of wind to generate electricity depends on places .....

- a) with strong winds.
- b) where dams are built on rivers.
- c) with weak winds.
- d) where boats sail in rivers.

74- Sand is formed due to breaking down of .....

- a) glass
- b) plastic
- c) wood
- d) rocks.



- 75- The force of wind plays an important role in erosion, because it can transfer .....
- a) sound energy
  - b) small sized-particles of sand
  - c) light energy
  - d) very large pieces of rocks.
- 76- The breaking of rocks without changing their properties is called .....
- a) mechanical weathering
  - b) erosion
  - c) chemical weathering only
  - d) deposition
- 77- All the following are from causes of chemical weathering, except .....
- a) oxygen
  - b) water
  - c) plant roots
  - d) acid rains
- 78- All the following cause mechanical weathering, except .....
- a) wind
  - b) water
  - c) plant roots
  - d) acid rains
- 79- Dissolving metals forming rocks is an example for.....
- a) mechanical weathering
  - b) erosion
  - c) chemical weathering
  - d) deposition
- 80- Water can produce ..... that affect(s) the shape of the Earth.
- a) mechanical weathering only.
  - b) chemical weathering only.
  - c) both mechanical and chemical weathering.
  - d) neither mechanical nor chemical weathering.
- 81- All the following are types of sediments, except .....
- a) sand
  - b) rocks
  - c) soil
  - d) glass
- 82- Friction force between rocks and sand carried by wind may cause .....
- a) Weathering
  - b) erosion
  - c) deposition
  - d) no correct answer
- 83- Cracks caused by freezing of water and melting of ice represent .....
- a) mechanical weathering
  - b) erosion
  - c) chemical weathering only
  - d) deposition
- 84- Pulling sand away from beaches by sea waves represents .....
- a) mechanical weathering
  - b) erosion
  - c) chemical weathering only
  - d) deposition

85- ..... is formed where rivers meet a sea.

- a) Mountain                      b) Valley                      c) Delta                      d) Canyon

86- The delta is formed when the river stream entering all of the following, except.....

- a) a lake                      b) a sea                      c) a mountain                      d) an ocean

87- Among the examples of fast changes of landforms is the disappearance of

- a) canyons                      b) valleys                      c) mountains                      d) sandcastle

88- Each of the following plays a role in erosion process, except .....

- a) blowing wind    b) water floods    c) sunlight    d) Earth's gravity.

89- A canyon can be formed by the effect of .....

- a) water only                      b) wind only  
c) water and wind                      d) water and sunlight

90- A canyon may take ..... of years to be formed.

- a) hundreds                      b) tens                      c) millions                      d) couple

91- Among canyons which has V-shape are .....

- a) Wadi Nakhr and the Small Canyon.  
b) the Colored Canyon and Wadi Rum.  
c) the Small Canyon and the Colored Canyon.  
d) Wadi Nakhr and Wadi Rum.

92- If the big rocks of a mountain were broken off, this is an evidence of .....

- a) weathering process only                      b) weathering and erosion processes  
c) erosion process only                      d) weathering and deposition processes

93- Nile River Delta in Egypt is formed due to ..... process.

- a) chemical weathering                      b) erosion  
c) mechanical weathering                      d) deposition

94- ..... can erode valleys and form canyons across them.

- a) Rivers                      b) Mountains                      c) Dunes                      d) Rocks

95- The shape of the valley depends upon all of the following factors, except

- a) type of rocks                      b) speed of the river  
c) size of rocks                      d) size of the river





- 13- The type of weathering in which the structure of rocks changes due to chemical reactions is known as ..... weathering
- 14- Lichens produce ..... on rocks that dissolve ..... found in these rocks.
- 15- Oxygen in air reacts with iron of some rocks forming ..... colored rust.
- 16- Gentle winds can form small ..... like that present at sea beaches.
- 17- ..... and ..... are the two processes that have the main role in formation of canyons.
- 18- Sand dunes are formed due to erosion and ..... processes at the same time.
- 19- ..... are common landforms between desert and beach.
- 20- Canyon is a special type of ..... which its sides are steep.
- 21- When the speed of the water stream that is run over a mountain increases, the rate of erosion will .....
- 22- When the sides of a valley become steep, this valley may be changed into a .....
- 23- Wind erosion can carve the ..... into different forms.
- 24- Sand dunes may reach ..... of meters tall.
- 25- Wind ..... and ..... affect the distance and the way of sand that travel through air.

Put (✓) or (X) then correct the wrong:

- 1-Electricity is a form of energy found in the food we eat. ( )
- 2-Energy can't be changed from one form to another. ( )
- 3-Energy is neither created nor destroyed. ( )
- 4-We can continue to move a toy car even after its battery runs out. ( )
- 5-Toy cars depend on fuel as a source of electrical energy. ( )
- 6-Solar energy is the energy consumed in solar cells. ( )
- 7-Batteries produce chemical energy. ( )
- 8-Cellular phones change electrical energy into sound and light energies. ( )
- 9-Energy may be destroyed inside different devices. ( )



- 10- Dynamo (generator) is used to produce electrical energy. ( )
- 11- Small watches consume kinetic energy. ( )
- 12- We can convert the solar energy into different forms of energy. ( )
- 13- Light energy from the Sun causes trees to grow. ( )
- 14- Electric bulb depends on chemical energy to be operated. ( )
- 15- You feel hot when you approach your hand to an electric bulb. ( )
- 16- Both electric bulb and electric heater produce thermal energy. ( )
- 17- While playing a guitar, the electrical energy changes into sound energy. ( )
- 18- You need gasoline to move a bicycle. ( )
- 19- We cannot drive a car that doesn't contain fuel. ( )
- 20- Biofuel is one of non-renewable resources of energy. ( )
- 21- Extreme cooling under the Earth's surface, helps in the formation of oil. ( )
- 22- Charcoal is made up of grass, corn or wood chips. ( )
- 23- Coal is the source of heat energy in fireplaces. ( )
- 24- Water and oil are two renewable resources of energy. ( )
- 25- Petroleum oil is considered as a non-renewable source of energy. ( )
- 26- Flashlight depends on a non-renewable source of energy. ( )
- 27- We can make a liquid fuel from grass and wood chips. ( )
- 28- All forms of fossil fuel are formed under the earth's surface. ( )
- 29- Water is renewable as it is recycled in nature. ( )
- 30- Plugging many unused electrical appliances conserve electrical energy. ( )
- 31- Turning off lights that we do not need, is a way to conserve electricity. ( )
- 32- To reduce pollution and preserve non-renewable resources of energy, we must decrease their using. ( )
- 33- The amount of oil on the Earth is limited. ( )
- 34- Acid rains cause soil and water pollution. ( )
- 35- As a result of global warming, the temperature on the Earth increases. ( )
- 36- Waterfalls are from the renewable sources of energy. ( )
- 37- Windmill turbines generate electricity by using the energy of water. ( )
- 38- Windmills can do their job all the time as the wind never stops blowing. ( )

- 39- Both Windmills and watermills are used to grind grains to make flour. ( )
- 40- Placing large windows on the walls that face the Sun helps in warming houses. ( )
- 41- The difference in temperature between cold and hot air causes air to stop. ( )
- 42- When the water of rivers falls from a high slope, potential energy is converted into kinetic energy. ( )
- 43- Electrical energy can be generated from both waterfalls and wind movement. ( )
- 44- A modern wind turbine is taller than an old windmill. ( )
- 45- Dams are built on rivers to control the wind flow. ( )
- 46- Water turbines are used to generate electricity in places which have waterfalls or dam. ( )
- 47- Weathering process happens over short period of time. ( )
- 48- Water and wind are artificial forces that are responsible for the erosion of sea coasts. ( )
- 49- The surface of the Earth changes from time to time. ( )
- 50- Wind cannot break down rocks. ( )
- 51- Breaking of statues is an example of weathering. ( )
- 52- Rusting of statues is an example of mechanical weathering. ( )
- 53- Wind can be considered one of the factors that cause weathering. ( )
- 54- When iron in rocks rusts, the rock becomes stronger. ( )
- 55- All physical factors of mechanical weathering lead to breaking down of rocks. ( )
- 56- The effect of erosion may last for hundreds of years. ( )
- 57- Deposition process never changes the shape of the land. ( )
- 58- Sea waves may cause erosion of benches. ( )
- 59- Blowing of wind and flooding of water play an important role in erosion process. ( )
- 60- When the water is moving over the sand, It loaves an Impression on it. ( )



- 61- Canyon may take one year only to be formed. ( )
- 62- Canyon may be formed due to the effect of wind weathering and erosion. ( )
- 63- Wadi Rum in Jordan is an example of dune. ( )
- 64- Rivers cause less erosion of rocks than small streams. ( )
- 65- Both canyons and valleys often have river in their bottom. ( )
- 66- The walls of valleys are vertical and steep. ( )
- 67- Wind can pick up sand grains in forming sand dunes. ( )
- 68- Sand dunes are formed by erosion only. ( )
- 69- Sand dunes usually seen separately, and may cover a small area. ( )

Choose from column (B) what suits it in column (A) :

1)

Column (A)	Column (B)
1-Energy neither created nor lost but is converted from one form to another.	a) sun
2- Energy consumed to operate devices.	b) law of conservation
3- The main source of energy on earth.	c) wasted energy
4- Energy produced from device but not used	d) input energy

1	2	3	4
.....	.....	.....	.....

2)

Column (A)	Column (B)
1-It stores chemical energy.	a) generator
2-Changes electrical energy into heat energy.	b) Electric mixer
3-turns kinetic energy into electrical energy.	c) Electric iron
4- Convert electrical energy into kinetic energy.	d) battery

1	2	3	4
.....	.....	.....	.....

3)

Column (A)	Column (B)
1- energy produced in the solar heater.	a) Kinetic energy.
2- Input energy in hair dryer.	b) Sound energy.
3- energy produced from the electric fan.	c) electrical energy.
4- output energy when playing a piano	d) Heat energy.

1	2	3	4
.....	.....	.....	.....

4)

(A)	(B)
1-Petroleum oil	a) The oldest renewable fuel that is used all over the world.
2- Biofuel	b) The main source of energy and fuel
3-Charcoal	c) Is a type of fossil fuel and is the energy source in gas oven
4-Wood	d) Is a type of fossil fuel that is produced from dead old marine organisms.
5- Sun	e) Fuel made from living things that can be planted.
6-Fossil fuel	f) Is a type of biofuel made up from wood.
7-Natural gas	g) Fuel made from remains of living things that decomposed millions of years ago.

1	2	3	4	5	6	7
.....	.....	.....	.....	.....	.....	.....



5)

Column (A)	Column (B)
1-Smog	a) Is resulted from burning of fossil fuels.
2-Air pollution	b) The natural resources that can be replaced shortly after being used.
3-Global warming	c) Device in the electric power station that operated by steam.
4-Renewable energy resources	d) A phenomenon in which the Earth's temperature increases.
5- Pesticides	e) Cause water and soil pollution.
6- Turbine	f) Cause damage to tissues of respiratory system.

1	2	3	4	5	6
.....	.....	.....	.....	.....	.....

6)

Column (A)	Column (B)
1-Were used to grind grains.	a) Dams
2-A fuel used in fireplace.	b) Greenhouses
3-Control the flow of water in rivers.	c) convergent mirrors
4-The natural resources that are consumed at a rate faster than they can be renewed.	d) Non-renewable resources of energy
5- Help farmers in planting crops that need hot weather.	e) Coal
6-A type of mirrors that is used to collect and focus sunlight onto metal pots for cooking.	f) windmills

1	2	3	4	5	6
.....	.....	.....	.....	.....	.....

7)

Column (A)	Column (B)
1- Device that turns when the wind blows.	a) Solar water heater
2-Device consists of panels made of black pipes used to heat water.	b) radiant energy
3-Designed to absorb the Sun to generate electricity.	c) Water turbine
4-A type of energy found in sun rays.	d) Solar panels
5-A turbine that converts the energy of falling water into electrical energy.	e) Wind turbine

1	2	3	4	5
.....	.....	.....	.....	.....

8)

Column (A)	Column (B)
1)Deep valleys that are carved by flowing of water.	a) Deposition
2)Can be made in few hours from sand particles on seashores.	b) Erosion
3)The dropping of sediments in a new place.	c) Canyon
4)Movement of sediments from one place to another.	d) Weathering
5)Process in which rocks are broken down into smaller particles.	e) Sandcastle

1	2	3	4	5
.....	.....	.....	.....	.....



9)

Column (A)	Column (B)
1)Part of plant grows inside cracks of rocks causing its weathering.	a) Oxygen
2)It is a type of weathering through which acids of lichens dissolve minerals of rocks.	b) Mechanical weathering
3)A gas in air combines with iron of some rocks and causes its weakness.	c) Roots
4)The type of weathering in which the rocks are broken down due to temperature.	d)The hurricanes
5)They can carry sand for longer distance.	e)Chemical weathering

1	2	3	4	5
.....	.....	.....	.....	.....

10)

Column (A)	Column (B)
1)small solid materials of sand, soil, and small particles of rocks	a) Geologists
2)The process by which the wind carves the rocks into different shapes.	b) Sediments
3)The largest and most famous canyon on Earth.	c) Delta
4)Fan-shaped (triangular) mass of mud and other sediments.	d) Erosion
5)Scientists who study rocks	e) Valleys
6)They are lowland areas between mountains and have gently sloped sides around rivers.	f)The grand canyon

1	2	3	4	5	6
.....	.....	.....	.....	.....	.....

**Give reason for the following:**

1- A remote controlled toy car needs battery to move from one place to another.

➤ .....

2- Some calculators use the sunlight to be operated

➤ .....

3- Thermal energy in mobile phone is considered as a wasted energy.

➤ .....

4- When you rub your hands, you feel warm.

➤ .....

5- Water and wind are considered as renewable resources of energy.

➤ .....

6- Coal and gasoline are considered as non-renewable resources of energy.

➤ .....

7- Farmers must decrease the use of pesticides.

➤ .....

8- We must turn off lights and unplug devices when they are not used.

➤ .....

9- Humans used windmills and watermills in the past.

➤ .....

10- Iron in rocks may rust.

➤ .....

➤ .....

11- Trees and other plants are growing on both sides of small canyons.

➤ .....

12- A sand dune may be formed in front a large rock in desert.

➤ .....

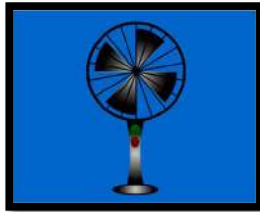


## What happens when ...?

- 1- The charge of remote controlled toy car batteries is running out.  
➤ .....
- 2- You turn on the T.V. (according to the change of energy).  
➤ .....
- 3- You burn a piece of wood. (according to the change of energy).  
➤ .....
- 4- You use a mobile phone for a long time. (according to the wasted energy).  
➤ .....
- 5- People increase using the wood of trees as a source of fuel.  
➤ .....
- 6- The remains of dead living organisms were buried under the Earth's surface over millions of years.  
➤ .....
- 7- Lichens growing on rocks produce acids.  
➤ .....
- 8- Red-colored rust is formed on some rocks.  
➤ .....
- 9- A river carries sediments meet a sea.  
➤ .....
- 10- A flat land if a water stream flows over it.  
➤ .....
- 11- A river erodes the sediments of a mountain over a long period of time.  
➤ .....
- 12- Wind that is carrying sand particles hits a big rock.  
➤ .....

## Answer the following questions:

1- Study the opposite figure then answer the questions:



Input energy: 1) .....

2) .....

3) .....

Output energy: .....

.....

.....

\*\*\*\*\*

2- Place the sentences in order of how the fossil fuel is formed:

....	The remains of plants and animals are covered by rocks and sediments.
....	The plants and animals on Earth get old or sick and die.
....	Heat and pressure from Earth turn plants into coal and animals into oil and gas.
....	Layers and layers of mud and sand build up over time.

\*\*\*\*\*

3- These steps represent the generation of electricity in electric power stations. Arrange the following steps from the start to the end:

....	Steam starts to move turbines.
....	The petroleum or natural gas burns and produces thermal energy.
....	Electricity transfers through huge wires to cities.
....	The dynamo converts kinetic energy in turbines into electric energy
....	Thermal (heat) energy is used to heat water and produce steam.

\*\*\*\*\*



4- We can decrease air pollution by consuming fewer fossil fuels. In your opinion how we can conserve fossil fuels?

- .....
- .....
- .....

\*\*\*\*\*

5- Study the opposite figure then answer the questions:



(1)



(2)



(3)

- a) In figure (1) electricity can be generated from ..... movement.
- b) In figure (2) electricity can be generated from ..... movement.
- c) In figure (3) electricity can be generated from ..... energy.

# Final Revision

(guide answers)

Complete the following sentences with one of words between brackets:

(1) ( six - chemical - battery - output - Sun - input - kinetic )

- 1- Sun is the main source of energy on earth's surface.
- 2- Spacecraft needs more than six months to reach Mars.
- 3- When you eat an orange your body converts the chemical energy stored inside the orange into kinetic energy when you move.
- 4- Electrical energy is input energy in cellular phone to charge its battery.
- 5- The output energy in the small watch is kinetic energy.

(2)(electrical - stops - kinetic - chemical- heat - potential )

- 1- Batteries change chemical energy into electric energy.
- 2- To operate an electric mixer we use electrical energy.
- 3- When you press on the soap dispenser, you convert the potential energy stored in its spring into kinetic energy that moves the soap upward.
- 4- In any energy chain, some of the energy is lost in the form of heat.
- 5- When the fuel inside the car runs out, the car stops.

(3)(long – turbines – burning – Acid rains – fossil – water )

- 1- We have to heat the water to produce steam which is used to turn turbines in the electric power station.
- 2- Air pollution is usually caused due to burning of fossil fuel.
- 3- Global warming is one of the disadvantages of burning fossil fuel.
- 4- The fossil fuel is formed underground from dead plants or animals after a very long period of time.
- 5- Acid rains formed when carbon dioxide combines with water in air.



**(4)(renewable - kinetic – water turbine – generator - windmill )**

- 1- The water flow has kinetic energy, which moves the blades of water turbine to generate electrical energy.
- 2- The electricity that is generated by wind turbines is considered as renewable energy resource.
- 3- When wind Kinetic energy increases, the blades of windmill spin more quickly.
- 4- A wind turbine is connected to a generator that converts kinetic energy to electrical energy.



**(5) (Electrical – warms – solar cells – thermal – wires – batteries)**

- 1- Solar panels made of many small solar cells that can generate electricity.
- 2- Electrical energy and thermal energy are the two types of energy produced from solar panels.
- 3- Solar cells that are found in some calculators produce electrical energy that is used to recharge their batteries.
- 4- The sun warms the earth and the wind, causing air movement and wind blowing.
- 5- Electricity is transferred to cities through huge wires.

**(6)(gravitational – kinetic – water – Hydroelectric – wind )**

- 1- When the wind turbines rotate, kinetic energy is converted into electrical energy.
- 2- Kinetic energy created by wind movement is used to rotate the blades of wind turbines.
- 3- Kinetic energy created by water movement is used to rotate the blades of water turbines.
- 4- The reason of flowing of river water downhill is the gravitational force.

(7)(kinetic – potential – Dams – decrease – Hydroelectric – increase )

- 1- The amount of coal will decrease as the time passes.
- 2- Hydroelectric energy is a type of electrical energy generated by water turbines in dams.
- 3- Water of rivers stores great potential energy, when dam prevent the flow of water.
- 4- When water of river is released, kinetic energy of falling water increases.
- 5- Dams control the flow of water in rivers to generate electricity.
- 6- Running water in rivers has kinetic energy.



-----  
(8) (mechanical – increases – dissolved minerals – chemical – water)

- 1) The shape of coastal rocks is affected by the forces of water and wind.
- 2) When water freezes, it expands. This means that its volume increases.
- 3) Limestone caves are formed due to the combination of dissolved minerals.
- 4) Plant roots help in the mechanical weathering of rocks.
- 5) Limestone caves are formed by the action of chemical weathering.

-----  
(9) (wind – erosion – water – gravity – shorter)

- 1) Gentle wind may carry sand for shorter distance.
- 2) Movement of sediments from a place to another represent erosion process.
- 3) Pulling down broken weathered rocks at mountainsides occurs by the effect of gravity.
- 4) Wind, water and gravity are natural factors that control erosion process.
- 5) Blowing of strong wind in the desert may form large sand dunes.



(10) (gravity – increases – water – canyon – gently – erosion – river)

- 1) If the rain falls over a small canyon for several times per year, its depth increases.
- 2) Wadi Nakhr in Oman is an example of canyon landform.
- 3) Canyon is formed by the effect of the stream of water.
- 4) The process of carving the rock into different shapes by wind blowing is erosion process.
- 5) Both of canyons and valleys have a river flow through their lowest points.
- 6) The sides of the canyon at the beginning of its formation are gently sloped.
- 7) The rainwater gathers in small streams due to the pulling force of gravity.

Choose the correct answer:

- 1- Energy is very important for most devices to .....  
a) operate      b) do their functions      c) move      d) all the previous
- 2- The energy source in toy car is .....  
a) engine      b) tires      c) battery      d) fuel
- 3- When batteries run out, devices .....  
a) operate      b) move      c) stop      d) do their functions
- 4- When batteries run out, we must .....  
a) charge it      b) change it      c) burn it      d) a and b
- 5- Spacecraft takes several ..... to travel from earth to mars.  
a) minutes      b) days      c) months      d) years
- 6- Curiosity rover is designed to explore .....  
a) Earth planet      b) moon      c) mars planet      d) the sun
- 7- Curiosity is the most famous ..... on mars.  
a) Planet      b) robot      c) rocket      d) spacecraft
- 8- Robots and vehicles are operated by.....  
a) electric chargers      b) long-term batteries  
c) solar panels      d) b and c



9- The electrical energy changes in hair dryer into ..... and ..... energies.

- a) sound – thermal
- b) kinetic – light
- c) thermal – light
- d) light – sound

10- Heat energy is the ..... energy in hair dryer.

- a) input
- b) output
- c) wasted
- d) lost

11- Electrical energy changes inside light bulb into ..... and..... Energies.

- a) sound – thermal
- b) kinetic – light
- c) thermal – light
- d) light – sound

12- When a piece of coal is burnt, ..... energy is produced.

- a) sound
- b) kinetic
- c) thermal
- d) potential

13- The ..... Changes electrical energy into light and sound energies.

- a) TV
- b) cellular phone
- c) radio
- d) a and b

14- Light energy is produced from all the following devices except .....

- a) TV
- b) cellular phone
- c) radio
- d) electric lamp

15- Sound energy is produced from all the following devices except

- a) TV
- b) cellular phone
- c) radio
- d) electric iron

16- In hair dryer and electric water kettle, the electrical energy changes into ..... energy.

- a) electrical
- b) kinetic
- c) thermal
- d) potential

17- Due to friction of bikes's tire and road some kinetic energy is converted into ..... energy.

- a) sound
- b) light
- c) thermal
- d) potential

18- Which kind of energy is NOT produced by the sun?

- a) heat energy
- b) light energy
- c) mechanical energy
- d) solar energy

19- Which form of energy is not used or produced when electric lamp is turned?

- a) Electrical
- b) light
- c) sound
- d) thermal

20- When you use the hand bell the ..... energy changes into sound energy.

- a) electrical
- b) light
- c) kinetic
- d) thermal



21- Which sentences shows the energy changes in the flash light in correct order?

- a) Chemical – electrical – light
- b) electrical – chemical – light
- c) light – electrical – chemical
- d) electrical – light – chemical

22- During charging a mobile phone, the ..... energy is converted into ..... energy that is stored in the phone battery.

- a) electrical – chemical
- b) chemical – thermal
- c) electrical – thermal
- d) thermal – chemical



23- During the running of a player the chemical energy inside his body is converted into ..... and ..... energies.

- a) potential – light
- b) kinetic – light
- c) kinetic – thermal
- d) thermal – light

24- The output energy when playing a drums is the ..... energy.

- a) electrical
- b) light
- c) potential
- d) sound

25- You feel warm when you rub your hands because ..... energy transformed into thermal energy.

- a) electrical
- b) light
- c) kinetic
- d) sound

26- The produced ..... energy does not help the blender do its job.

- a) Chemical
- b) sound
- c) light
- d) potential

27- In the washing machine, the ..... energy changes into kinetic and sound energies.

- a) light
- b) electrical
- c) thermal
- d) potential

28- ..... is used in electric power stations to produce electricity.

- a) Water
- b) Coal
- c) Food
- d) Green plants

29- "Energy is saved", this is known as the.....

- a) Law of Conservation of Energy
- b) Law of Attraction Force
- c) First Law of Newton
- d) Second Law of Newton

30- If the ..... energy doesn't go through the television's wire, it will not turn on.

- a) electrical
- b) light
- c) kinetic
- d) sound

- 31- Vehicles on Mars change solar energy into ..... energies to operate their sensors and to move on Mars.  
a) electrical                      b) heat                      c) kinetic                      d) all the previous
- 32- All these devices consume electric energy, except.....  
a) TV                      b) cellular phone                      c) radio                      d) solar cells
- 33- ..... consume electric energy.  
a) Solar cells                      b) Batteries                      c) Solar heaters                      d) Cellular phones
- 34- Electric energy is ..... in the electric heater.  
a) Consumed                      b) produced                      c) wasted                      d) destroyed
- 35- Electric wires are made of .....  
a) copper                      b) wood                      c) glass                      d) paper
- 36- When you use the hand bell, the ..... energy changes into sound energy.  
a) light                      b) thermal                      c) kinetic                      d) electric
- 37- The two main types of fuel are .....  
a) wood and coal                      b) wind and water  
c) the sun and the moon                      d) biofuel and fossil fuel.
- 38- ..... is an example of biofuel.  
a) Petroleum                      b) Natural gas                      c) Coal                      d) corn plant
- 39- Car engine can be operated by .....  
a) coal only                      b) coal and wood  
c) gasoline only                      d) gasoline and natural gas
- 40- All the following are renewable source of energy except .....  
a) Wind                      b) Sun                      c) Biofuel                      d) petroleum
- 41- ..... is (are) from the importance of fuel.  
a) Operating cars                      b) Generating electricity  
c) Warming houses                      d) All the previous
- 42- All the following are found deeply under the earth's surface except .....  
a) Oil                      b) green plants                      c) natural gas                      d) coal
- 43- All the following are used to generate electrical energy, except .....  
a) rain water                      b) waterfalls                      c) natural gas                      d) oil



44- All the following factors play an important role in the formation of fossil fuel, except .....

- a) extreme pressure.
- b) extreme heat.
- c) The moon light.
- d) rocks and sediment

45- The fuel must be ..... at first to move a car.

- a) freezed
- b) burned inside the car engine.
- c) cooled
- d) removed from the fuel tank.

46- Ancient people use ..... as a fuel before discovering gasoline.

- a) water
- b) electricity
- c) wood
- d) wind

47- All the following are forms of fuel, except .....

- a) wood
- b) natural gas
- c) gasoline
- d) glass

48- From the disadvantages of biofuel is (are) .....

- a) cutting trees
- b) removal of forests
- c) air pollution
- d) a and b

49- Coal is formed under the earth's surface from the remains of .....

- a) Dead animals
- b) dead plants
- c) dead humans
- d) dead insects

50- The non-renewable resources of energy take ..... to be formed.

- a) Short period of time
- b) few hours
- c) few minutes
- d) a very long period of time

51- Both coal and charcoal .....

- a) are renewable resources of energy.
- b) are non-renewable resources of energy.
- c) are examples of biofuel.
- d) produce thermal energy on burning.



52- Ethanol is a liquid fuel produced from.....

- a) grass
- b) corn
- c) wood chips
- d) all the previous

53- Some forms of fuel can be used in cooking such as .....

- a) Wood
- b) coal
- c) natural gas
- d) all the previous

54- We can use the energy obtained from burning of wood in all of the following situations, except .....

- a) warming houses.
- b) operating television.
- c) cooking food.
- d) boiling water.

55- Hydroelectric energy is generated from .....

- a) waterfalls only.
- b) waterfalls and dams.
- c) biofuel only.
- d) biofuel and fossil fuel

56- ..... can be used in electric power stations to generate electricity.

- a) Coal
- b) oil
- c) natural gas
- d) all the previous

57- The rate of consumption of fossil fuel is ..... the rate of its formation.

- a) more than
- b) less than
- c) equal to
- d) no correct answer

58- Which of the following forms of fuels can be manufactured by man?

- a) Oil and natural gas.
- b) Oil and charcoal.
- c) Natural gas and ethanol.
- d) Charcoal and ethanol

59- We can use the energy that is produced from..... To produce electricity.

- a) renewable resources only
- b) non-renewable resources only
- c) a and b
- d) no correct answer

60- The amount of ..... is limited on Earth.

- a) biofuel
- b) fossil fuel
- c) non-renewable energy resources
- d) b and c

61- ..... moves the turbines in electric power stations.

- a) Air
- b) Steam
- c) Water
- d) No correct answer

62- Cars smog cause irritation of ..... of humans.

- a) stomach and eyes
- b) eyes and lungs
- c) small intestine
- d) brain

63- Burning of fossil fuel produces .....

- a) thermal energy.
- b) gases that pollute the air and solar energy.
- c) gases that pollute the air.
- d) a and c.





64- Among the following resources, we must conserve .....

- a) solar energy and coal.
- b) solar energy and wind energy.
- c) wind energy and oil.
- d) oil and coal.

65- People use machines to .....

- a) make their life easier
- b) save their effort
- c) get tasks done faster
- d) all the previous

66- Both modern wind turbines and water turbines are similar in their .....

- a) shape.
- b) ability to generate electrical energy.
- c) blades number
- d) length

67- The wind movement has ..... energy which moves the windmill's blades.

- a) Kinetic
- b) solar
- c) thermal
- d) potential

68- ..... depends on a renewable source of energy.

- a) Petroleum oven
- b) Gas oven
- c) Solar cell
- d) Flashlight

69- In the absence of sunlight, all the following items will be affected, except

- a) plants
- b) human
- c) rocks
- d) animals.

70- ..... can turn a turbine to generate electricity.

- a) Wind blowing
- b) water flowing
- c) burning coal
- d) all the previous

71- Which of the following pairs of materials are good natural resources for providing energy?

- a) gravel and oil
- b) trees and carbon dioxide
- c) the ocean and soil
- d) wind and natural gas

72- Using of water to generate electricity depends on places .....

- a) with strong winds.
- b) where dams are built on rivers.
- c) with weak winds.
- d) where boats sail in rivers.

73- Using of wind to generate electricity depends on places .....

- a) with strong winds.
- b) where dams are built on rivers.
- c) with weak winds.
- d) where boats sail in rivers.

74- Sand is formed due to breaking down of .....

- a) glass
- b) plastic
- c) wood
- d) rocks.

75- The force of wind plays an important role in erosion, because it can transfer .....

- a) sound energy
- b) small sized-particles of sand
- c) light energy
- d) very large pieces of rocks.

76- The breaking of rocks without changing their properties is called .....

- a) mechanical weathering
- b) erosion
- c) chemical weathering only
- d) deposition

77- All the following are from causes of chemical weathering, except .....

- a) oxygen
- b) water
- c) plant roots
- d) acid rains

78- All the following cause mechanical weathering, except .....

- a) wind
- b) water
- c) plant roots
- d) acid rains

79- Dissolving metals forming rocks is an example for.....

- a) mechanical weathering
- b) erosion
- c) chemical weathering
- d) deposition

80- Water can produce ..... that affect(s) the shape of the Earth.

- a) mechanical weathering only.
- b) chemical weathering only.
- c) both mechanical and chemical weathering.
- d) neither mechanical nor chemical weathering.

81- All the following are types of sediments, except .....

- a) sand
- b) rocks
- c) soil
- d) glass

82- Friction force between rocks and sand carried by wind may cause .....

- a) Weathering
- b) erosion
- c) deposition
- d) no correct answer

83- Cracks caused by freezing of water and melting of ice represent .....

- a) mechanical weathering
- b) erosion
- c) chemical weathering only
- d) deposition

84- Pulling sand away from beaches by sea waves represents .....

- a) mechanical weathering
- b) erosion
- c) chemical weathering only
- d) deposition



85- ..... is formed where rivers meet a sea.

- a) Mountain                      b) Valley                      c) Delta                      d) Canyon

86- The delta is formed when the river stream entering all of the following, except.....

- a) a lake                      b) a sea                      c) a mountain                      d) an ocean

87- Among the examples of fast changes of landforms is the disappearance of

- a) canyons                      b) valleys                      c) mountains                      d) sandcastle

88- Each of the following plays a role in erosion process, except .....

- a) blowing wind    b) water floods    c) sunlight    d) Earth's gravity.

89- A canyon can be formed by the effect of .....

- a) water only                      b) wind only  
c) water and wind                      d) water and sunlight

90- A canyon may take ..... of years to be formed.

- a) hundreds                      b) tens                      c) millions                      d) couple

91- Among canyons which has V-shape are .....

- a) Wadi Nakhr and the Small Canyon.  
b) the Colored Canyon and Wadi Rum.  
c) the Small Canyon and the Colored Canyon.  
d) Wadi Nakhr and Wadi Rum.

92- If the big rocks of a mountain were broken off, this is an evidence of .....

- a) weathering process only                      b) weathering and erosion processes  
c) erosion process only                      d) weathering and deposition processes

93- Nile River Delta in Egypt is formed due to ..... process.

- a) chemical weathering                      b) erosion  
c) mechanical weathering                      d) deposition

94- ..... can erode valleys and form canyons across them.

- a) Rivers                      b) Mountains                      c) Dunes                      d) Rocks

95- The shape of the valley depends upon all of the following factors, except

- a) type of rocks                      b) speed of the river  
c) size of rocks                      d) size of the river

- 96- Rivers that flow fast can cause more ..... than rivers with slow flow.  
a) erosion      b) weathering      c) deposition      d) formation
- 97- ..... has brown and black colors.  
a) Wadi Nakhr      b) Wadi Rum      c) Small Canyon      d) Colored Canyon
- 98- Walls of canyons are characterized by all the following, except that they  
a) are very high      b) are gently sloped  
c) have great depth      d) consist of many rock layers
- 99- Sand dunes are common landforms between .....  
a) rainforest and sandy desert      b) beach and rainforest  
c) sandy desert and oceans      d) beach and sandy desert
- 100- When a rock blocks the path of flying sand, a ..... may be formed  
a) dune      b) river      c) valley      d) canyon
- 101- The formation of sand dunes in Eastern Desert in Egypt is due to the movement of.....  
a) floods      b) winds      c) waves      d) rains.

**Complete the following sentences:**

- 1- In the battery of a toy car chemical energy changes into electrical energy.
- 2- The wasted energy in the hair dryer is sound energy.
- 3- Any energy chain starts with the sun.
- 4- Green plants can convert light energy from the sun into chemical energy stored inside plants body.
- 5- Electric lamps consume electric energy.
- 6- We burn trees to get heat energy.
- 7- Solar cells change solar energy into electrical energy.
- 8- The number of blades in a modern mill is less than the number of blades in an old windmill.
- 9- Both coal and wood produce thermal energy on burning them.
- 10- Water flows through turbines in dams to generate electrical energy.
- 11- Both wind movement and water flow has kinetic energy.
- 12- Shaping the Earth is usually starts by weathering process.



- 13- The type of weathering in which the structure of rocks changes due to chemical reactions is known as chemical weathering
- 14- Lichens produce acids on rocks that dissolve minerals found in these rocks.
- 15- Oxygen in air reacts with iron of some rocks forming red colored rust.
- 16- Gentle winds can form small sand dunes like that present at sea beaches.
- 17- Weathering and erosion are the two processes that have the main role in formation of canyons.
- 18- Sand dunes are formed due to erosion and deposition processes at the same time.
- 19- Sand dunes are common landforms between desert and beach.
- 20- Canyon is a special type of valleys which its sides are steep.
- 21- When the speed of the water stream that is run over a mountain increases, the rate of erosion will increase.
- 22- When the sides of a valley become steep, this valley may be changed into a canyon.
- 23- Wind erosion can carve the rocks into different forms.
- 24- Sand dunes may reach hundreds of meters tall.
- 25- Wind force and direction affect the distance and the way of sand that travel through air.

Put (✓) or (X) then correct the wrong:

- 1-Electricity is a form of energy found in the food we eat. (x)
- 2-Energy can't be changed from one form to another. (x)
- 3-Energy is neither created nor destroyed. (✓)
- 4-We can continue to move a toy car even after its battery runs out. (x)
- 5-Toy cars depend on fuel as a source of electrical energy. (x)
- 6-Solar energy is the energy consumed in solar cells. (✓)
- 7-Batteries produce chemical energy. (x)
- 8-Cellular phones change electrical energy into sound and light energies. (✓)
- 9-Energy may be destroyed inside different devices. (x)

- 10- Dynamo (generator) is used to produce electrical energy. (v)
- 11- Small watches consume kinetic energy. (x)
- 12- We can convert the solar energy into different forms of energy. (v)
- 13- Light energy from the Sun causes trees to grow. (v)
- 14- Electric bulb depends on chemical energy to be operated. (x)
- 15- You feel hot when you approach your hand to an electric bulb. (v)
- 16- Both electric bulb and electric heater produce thermal energy. (v)
- 17- While playing a guitar, the electrical energy changes into sound energy. (x)
- 18- You need gasoline to move a bicycle. (x)
- 19- We cannot drive a car that doesn't contain fuel. (v)
- 20- Biofuel is one of non-renewable resources of energy. (x)
- 21- Extreme cooling under the Earth's surface, helps in the formation of oil. (x)
- 22- Charcoal is made up of grass, corn or wood chips. (x)
- 23- Coal is the source of heat energy in fireplaces. (v)
- 24- Water and oil are two renewable resources of energy. (x)
- 25- Petroleum oil is considered as a non-renewable source of energy. (v)
- 26- Flashlight depends on a non-renewable source of energy. (v)
- 27- We can make a liquid fuel from grass and wood chips. (v)
- 28- All forms of fossil fuel are formed under the earth's surface. (v)
- 29- Water is renewable as it is recycled in nature. (v)
- 30- Plugging many unused electrical appliances conserve electrical energy. (x)
- 31- Turning off lights that we do not need, is a way to conserve electricity. (v)
- 32- To reduce pollution and preserve non-renewable resources of energy, we must decrease their using. (v)
- 33- The amount of oil on the Earth is limited. (v)
- 34- Acid rains cause soil and water pollution. (v)
- 35- As a result of global warming, the temperature on the Earth increases. (v)
- 36- Waterfalls are from the renewable sources of energy. (v)
- 37- Windmill turbines generate electricity by using the energy of water. (x)
- 38- Windmills can do their job all the time as the wind never stops blowing. (x)



- 39- Both Windmills and watermills are used to grind grains to make flour. (v)
- 40- Placing large windows on the walls that face the Sun helps in warming houses. (v)
- 41- The difference in temperature between cold and hot air causes air to stop. (x)
- 42- When the water of rivers falls from a high slope, potential energy is converted into kinetic energy. (v)
- 43- Electrical energy can be generated from both waterfalls and wind movement. (v)
- 44- A modern wind turbine is taller than an old windmill. (v)
- 45- Dams are built on rivers to control the wind flow. (x)
- 46- Water turbines are used to generate electricity in places which have waterfalls or dam. (v)
- 47- Weathering process happens over short period of time. (x)
- 48- Water and wind are artificial forces that are responsible for the erosion of sea coasts. (x)
- 49- The surface of the Earth changes from time to time. (v)
- 50- Wind cannot break down rocks. (x)
- 51- Breaking of statues is an example of weathering. (v)
- 52- Rusting of statues is an example of mechanical weathering. (x)
- 53- Wind can be considered one of the factors that cause weathering. (v)
- 54- When iron in rocks rusts, the rock becomes stronger. (x)
- 55- All physical factors of mechanical weathering lead to breaking down of rocks. (v)
- 56- The effect of erosion may last for hundreds of years. (v)
- 57- Deposition process never changes the shape of the land. (x)
- 58- Sea waves may cause erosion of benches. (v)
- 59- Blowing of wind and flooding of water play an important role in erosion process. (v)
- 60- When the water is moving over the sand, It loaves an Impression on it. (v)

- 61- Canyon may take one year only to be formed. (x)
- 62- Canyon may be formed due to the effect of wind weathering and erosion. (v)
- 63- Wadi Rum in Jordan is an example of dune. (x)
- 64- Rivers cause less erosion of rocks than small streams. (x)
- 65- Both canyons and valleys often have river in their bottom. (v)
- 66- The walls of valleys are vertical and steep. (x)
- 67- Wind can pick up sand grains in forming sand dunes. (v)
- 68- Sand dunes are formed by erosion only. (x)
- 69- Sand dunes usually seen separately, and may cover a small area. (x)

Choose from column (B) what suits it in column (A) :

1)

Column (A)	Column (B)
1-Energy neither created nor lost but is converted from one form to another.	a) sun
2- Energy consumed to operate devices.	b) law of conservation
3- The main source of energy on earth.	c) wasted energy
4- Energy produced from device but not used	d) input energy

1	2	3	4
b	d	a	c

2)

Column (A)	Column (B)
1-It stores chemical energy.	a) generator
2-Changes electrical energy into heat energy.	b) Electric mixer
3-turns kinetic energy into electrical energy.	c) Electric iron
4- Convert electrical energy into kinetic energy.	d) battery

1	2	3	4
d	c	a	b



3)

Column (A)	Column (B)
1- energy produced in the solar heater.	a) Kinetic energy.
2- Input energy in hair dryer.	b) Sound energy.
3- energy produced from the electric fan.	c) electrical energy.
4- output energy when playing a piano	d) Heat energy.

1	2	3	4
d	c	a	b

4)

(A)	(B)
1-Petroleum oil	a) The oldest renewable fuel that is used all over the world.
2- Biofuel	b) The main source of energy and fuel
3-Charcoal	c) Is a type of fossil fuel and is the energy source in gas oven
4-Wood	d) Is a type of fossil fuel that is produced from dead old marine organisms.
5- Sun	e) Fuel made from living things that can be planted.
6-Fossil fuel	f) Is a type of biofuel made up from wood.
7-Natural gas	g) Fuel made from remains of living things that decomposed millions of years ago.

1	2	3	4	5	6	7
d	e	f	a	b	g	c

5)

Column (A)	Column (B)
1-Smog	a) Is resulted from burning of fossil fuels.
2-Air pollution	b) The natural resources that can be replaced shortly after being used.
3-Global warming	c) Device in the electric power station that operated by steam.
4-Renewable energy resources	d) A phenomenon in which the Earth's temperature increases.
5- Pesticides	e) Cause water and soil pollution.
6- Turbine	f) Cause damage to tissues of respiratory system.

1	2	3	4	5	6
f	a	d	b	e	c

6)

Column (A)	Column (B)
1-Were used to grind grains.	a) Dams
2-A fuel used in fireplace.	b) Greenhouses
3-Control the flow of water in rivers.	c) convergent mirrors
4-The natural resources that are consumed at a rate faster than they can be renewed.	d) Non-renewable resources of energy
5- Help farmers in planting crops that need hot weather.	e) Coal
6-A type of mirrors that is used to collect and focus sunlight onto metal pots for cooking.	f) windmills

1	2	3	4	5	6
f	e	a	d	b	c



7)

Column (A)	Column (B)
1- Device that turns when the wind blows.	a) Solar water heater
2-Device consists of panels made of black pipes used to heat water.	b) radiant energy
3-Designed to absorb the Sun to generate electricity.	c) Water turbine
4-A type of energy found in sun rays.	d) Solar panels
5-A turbine that converts the energy of falling water into electrical energy.	e) Wind turbine

1	2	3	4	5
e	a	d	b	c

8)

Column (A)	Column (B)
1)Deep valleys that are carved by flowing of water.	a) Deposition
2)Can be made in few hours from sand particles on seashores.	b)Erosion
3)The dropping of sediments in a new place.	c) Canyon
4)Movement of sediments from one place to another.	d)Weathering
5)Process in which rocks are broken down into smaller particles.	e) Sandcastle

1	2	3	4	5
c	e	a	b	d

9)

Column (A)	Column (B)
1) Part of plant grows inside cracks of rocks causing its weathering.	a) Oxygen
2) It is a type of weathering through which acids of lichens dissolve minerals of rocks.	b) Mechanical weathering
3) A gas in air combines with iron of some rocks and causes its weakness.	c) Roots
4) The type of weathering in which the rocks are broken down due to temperature.	d) The hurricanes
5) They can carry sand for longer distance.	e) Chemical weathering

1	2	3	4	5
c	e	a	b	d

10)

Column (A)	Column (B)
1) small solid materials of sand, soil, and small particles of rocks	a) Geologists
2) The process by which the wind carves the rocks into different shapes.	b) Sediments
3) The largest and most famous canyon on Earth.	c) Delta
4) Fan-shaped (triangular) mass of mud and other sediments.	d) Erosion
5) Scientists who study rocks	e) Valleys
6) They are lowland areas between mountains and have gently sloped sides around rivers.	f) The grand canyon

1	2	3	4	5	6
b	d	f	c	a	e



**Give reason for the following:**

- 1- A remote controlled toy car needs battery to move from one place to another.
  - Because the chemical energy stored in the battery is changed into electrical and kinetic energy.
- 2- Some calculators use the sunlight to be operated
  - Because sunlight is converted into electrical energy that operate the calculator.
- 3- Thermal energy in mobile phone is considered as a wasted energy.
  - Because it doesn't help the device to do its function.
- 4- When you rub your hands, you feel warm.
  - Because kinetic energy is changed into thermal energy.
- 5- Water and wind are considered as renewable resources of energy.
  - Because they can be replaced shortly after being used.
- 6- Coal and gasoline are considered as non-renewable resources of energy.
  - Because they are consumed at a rate faster than they can be renewed.
- 7- Farmers must decrease the use of pesticides.
  - Because pesticides cause water and soil pollution.
- 8- We must turn off lights and unplug devices when they are not used.
  - To conserve electricity.
- 9- Humans used windmills and watermills in the past.
  - To crush grains to make flour.
- 10- Iron in rocks may rust.
  - Because iron reacts with oxygen of air.
- 11- Trees and other plants are growing on both sides of small canyons.
  - Due to flow of water stream.
- 12- A sand dune may be formed in front a large rock in desert.
  - Because the rock blocks the path of the sand carried by wind.

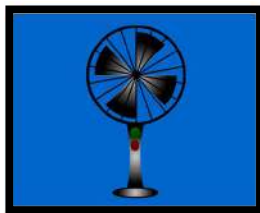
## What happens when ...?

- 1- The charge of remote controlled toy car batteries is running out.
  - The toy car stopped working.
- 2- You turn on the T.V. (according to the change of energy).
  - Electrical energy is converted into light and sound energy.
- 3- You burn a piece of wood. (according to the change of energy).
  - Chemical energy is converted into heat.
- 4- You use a mobile phone for a long time. (according to the wasted energy).
  - Some energy is wasted as thermal energy.
- 5- People increase using the wood of trees as a source of fuel.
  - Cause deforestation.
- 6- The remains of dead living organisms were buried under the Earth's surface over millions of years.
  - Fossil fuel formation.
- 7- Lichens growing on rocks produce acids.
  - Acids will dissolve minerals in rocks causing their breaking down.
- 8- Red-colored rust is formed on some rocks.
  - Rocks become weak and can easily break down.
- 9- A river carries sediments meet a sea.
  - Delta may be formed.
- 10- A flat land if a water stream flows over it.
  - Canyon may be formed.
- 11- A river erodes the sediments of a mountain over a long period of time.
  - Canyon may be formed.
- 12- Wind that is carrying sand particles hits a big rock.
  - Sand dunes may be formed.



## Answer the following questions:

1- Study the opposite figure then answer the questions:



Input energy: 1) **electrical**

2) **electrical**

3) **chemical**

Output energy: **sound**

**kinetic**

**thermal**

\*\*\*\*\*

2- Place the sentences in order of how the fossil fuel is formed:

<b>2</b>	The remains of plants and animals are covered by rocks and sediments.
<b>1</b>	The plants and animals on Earth get old or sick and die.
<b>4</b>	Heat and pressure from Earth turn plants into coal and animals into oil and gas.
<b>3</b>	Layers and layers of mud and sand build up over time.

\*\*\*\*\*

3- These steps represent the generation of electricity in electric power stations. Arrange the following steps from the start to the end:

<b>3</b>	Steam starts to move turbines.
<b>1</b>	The petroleum or natural gas burns and produces thermal energy.
<b>5</b>	Electricity transfers through huge wires to cities.
<b>4</b>	The dynamo converts kinetic energy in turbines into electric energy
<b>2</b>	Thermal (heat) energy is used to heat water and produce steam.

\*\*\*\*\*

4- We can decrease air pollution by consuming fewer fossil fuels. In your opinion how we can conserve fossil fuels?

- Turn off lamps if we don't need them.
- Use public transportation.
- Walk instead of driving cars.

\*\*\*\*\*

5- Study the opposite figure then answer the questions:



(1)



(2)



(3)

- a) In figure (1) electricity can be generated from wind movement.
- b) In figure (2) electricity can be generated from water movement.
- c) In figure (3) electricity can be generated from solar energy.

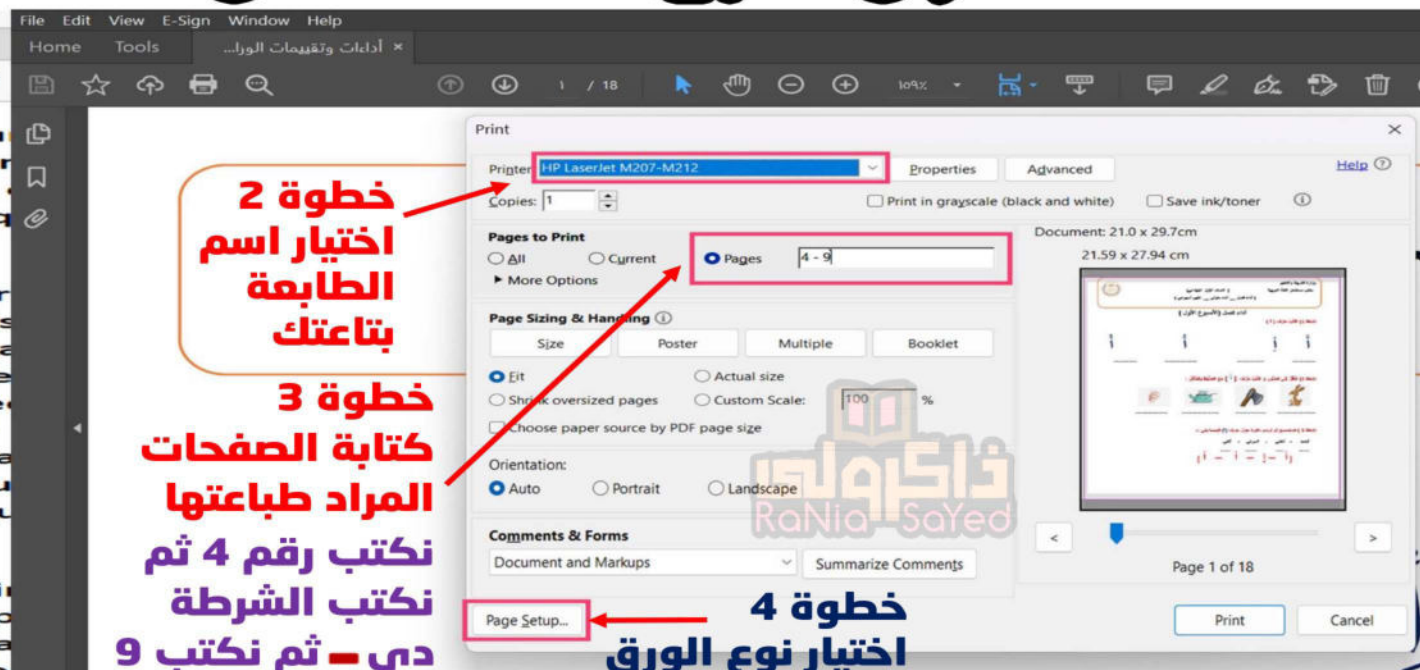


# كيفية طباعة صفحات معينة من ملف معين

## مثلا ازاي نطبع الصفحات من صفحة 4 الى صفحة 9



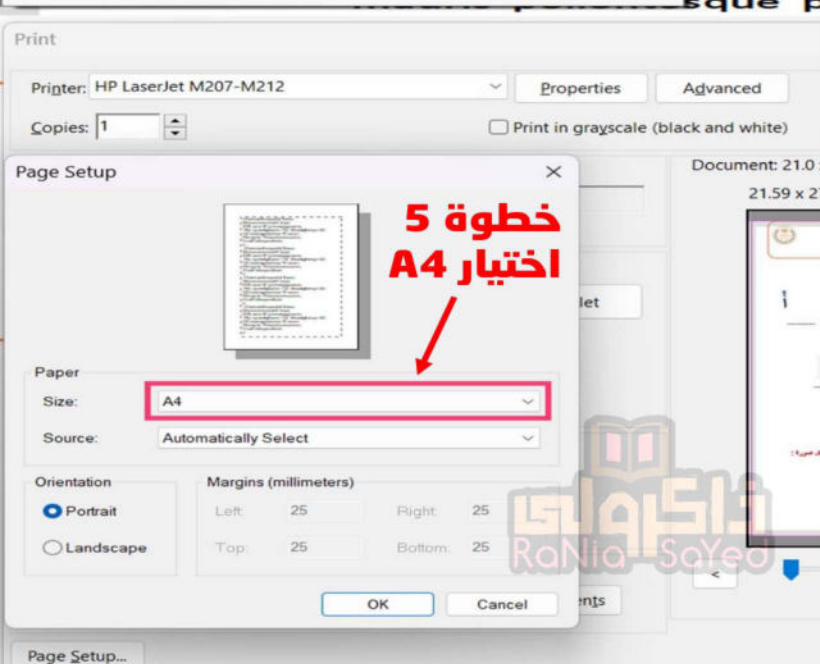
خطوة 1



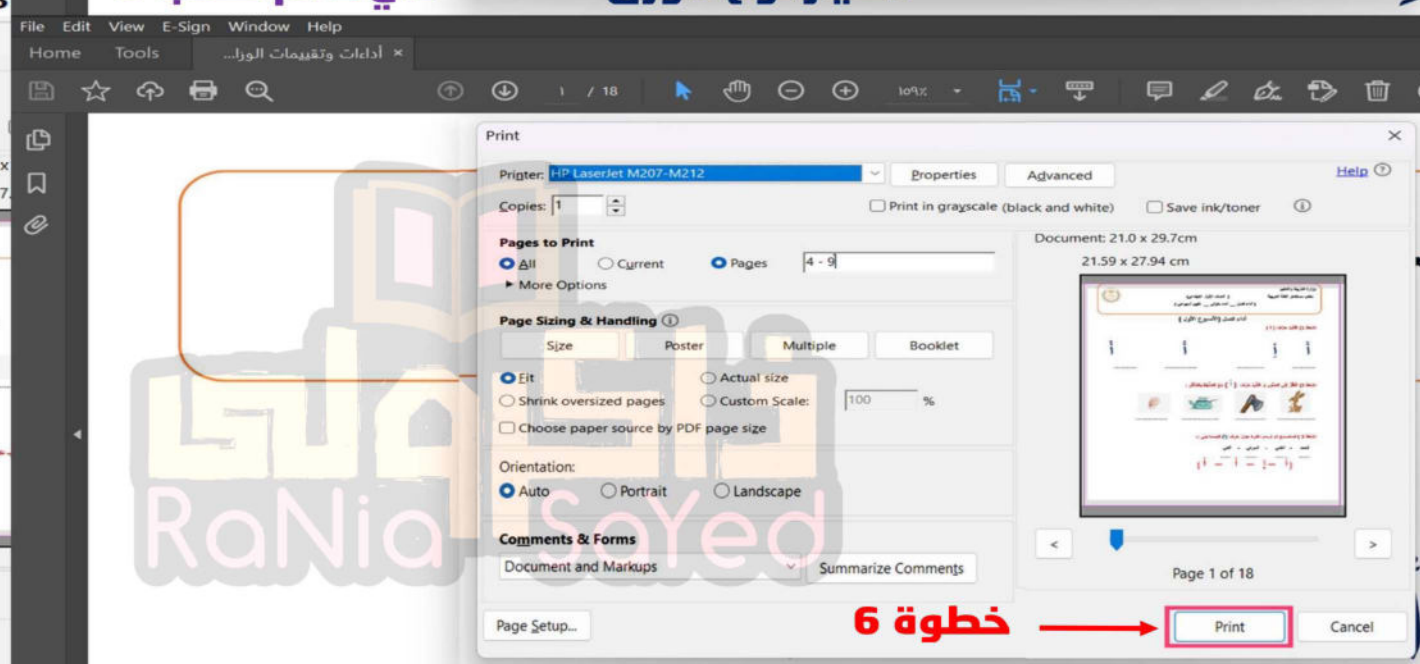
خطوة 2  
اختيار اسم  
الطابعة  
بتاعتك

خطوة 3  
كتابة الصفحات  
المراد طباعتها  
نكتب رقم 4 ثم  
نكتب الشرطة  
دي - ثم نكتب 9

خطوة 4  
اختيار نوع الورق



خطوة 5  
اختيار A4



خطوة 6